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ABSTRACT

The English Language and Concepts Program for Spanish-Speaking Children (LCS) is designed to enable Spanish-speaking youngsters to succeed in the regular school classroom. This report presents detailed summaries of major studies in the LCS tryout and evaluation sequence. (1) LCS prototype tryout, 1969: Tryout is described, materials and procedures are identified and pupil test results presented. (2) LCS component tryout, 1970-71: 135 LCS lessons were tested, pupil and teacher feedback obtained and two variants evaluated. (3) LCS product tryout, 1971-72: Materials and procedures were tried; test results, teacher comments and pupil attendance records are presented. (4) LCS classroom observations, 1971-72: Observation procedures and data collected during the tryout are described; implications for revisions are discussed. (5) Development of LCS assessment measure, 1972: Design and construction of this measure are described. (6) Development of LCS placement procedures. (7) Follow-up of participants, 1973: Results indicate pupils' subsequent success in regular English classrooms. (8) Tryout of LCS training system, 1972-73: Reactions of trainers and teachers and later system revisions are described. (9) LCS quality assurance data, 1972-73: Summaries indicate high levels of LCS-instructed pupil performance. (10) LCS quality assurance data inquiry, 1973-74, confirms the program's effectiveness after commercial distribution. (CHK)

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DEVELOPMENT OF THE SWRL ENGLISH LANGUAGE AND CONCEPTS PROGRAM FOR SPANISH-SPEAKING CHILDREN (LCS)

SWRL

SWRL EDUCATIONAL RESEARCH AND DEVELOPMENT

DEVELOPMENT OF THE SWRL ENGLISH LANGUAGE AND CONCEPTS PROGRAM FOR SPANISH-SPEAKING CHILDREN (LCS)

SWRL EDUCATIONAL RESEARCH AND DEVELOPMENT
4665 Lampson Avenue, Los Alamitos, California

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PREFACE

Development of the SWRL English Language and Concepts Program for Spanish-Speaking Children (LCS)

The English Language and Concepts Program for Spanish-Speaking Children (LCS) is an outcome of SWRL R&D designed to provide quality-verified resources for use by schools in reliably accomplishing significant instructional outcomes. The objectives of the development effort that led to LCS were simple and straightforward in desire but ambitious and complex in execution. The aim was to produce the wherewithal for a Spanish-speaking youngster to begin succeeding in the regular school classroom as rapidly as possible and with success in all subjects equivalent to that of children not requiring special initial instruction in English language and concepts. The development was complex because we sought resources that would be concurrently attractive to pupils, manageable for teachers, affordable by schools, and acceptable to parents and community across the full range of pupils, teachers, districts and communities. It is relatively easy to accomplish one or a few of these objectives, but to satisfy all of them concurrently and demonstrate a high level of pupil attainment on the outcomes of the instruction is an ambitious development obligation to assume.

In assuming this obligation it was necessary to concede other desirable aims. For example, the traditional aims of English-as-a-second-language instruction were not sought. There was no commitment to the youngsters to speak "perfect" English, only to their speaking English to communicate "perfectly" in the regular classroom. Likewise, the conventional

aims of bilingual-bicultural were not sought. There was no commitment that the teachers be bilingual or bicultural, only to their having language and cultural sensitivity to communicate with children of different languages and cultures.

The development of LCS involved a series of tryouts of all program resource materials and procedures. The tryouts successively increased in length and complexity consistent with the general SWRL paradigm of Instructional Product Development Stages shown in Table 1. The tryout sequence is conducted to confirm that all program resources are manageable under a range of school conditions and that they can be used to consistently attain the proficiency sought for the participating pupils.

The present report presents a detailed summary of the major studies in the tryout sequence. This documentation was prepared during the course of development as the inquiry proceeded. The documentation both marked the status of development progress and also recorded the successive improvements in program materials and procedures introduced on the basis of feedback from the school tryouts. The inquiries are cumulated here for several possible audiences. Persons using LCS may be interested in how the Program characteristics were established and verified. Persons concerned with instructional R&D may be interested in the technology of the development inquiry. Such R&D specialists may also be interested in a volume (SWRL Working Papers, 1974) that reports a sequence of analytic inquiry conducted concurrently to provide general disciplined information pertinent as background to the LCS.

Each of the studies reported here is a self-contained description, but each study is best interpreted in the context of the five-year sequence that may be overviewed as follows.

The instructional design characteristics of the Program were formulated in 1968-69. Representative prototype instructional segments were tried out with individual pupils, small groups and small numbers of classes in 1969-70. During 1970-71, the first half of the instructional system was tried out in full form. The information derived from this tryout was incorporated into a

Table 1

SWRL Instructional Product Development Stages

Stage	Activity	Uncertainty Focus	Typical Duration of Tryout
Formulation	Specifying the desired instructional outcomes; identifying the skills required to achieve the outcomes; designing strategies for teaching the skills.	Specification parameters.	One to several experimental sessions.
Prototype	Testing instructional strategies by empirically investigating variations of materials and methods, and assessing the impact of each variation.	Product specifications.	One day to few weeks.
Component	Producing a segment of instruction and trying it out with a single learner or groups of learners in a natural setting to determine if the instruction accomplishes its objectives.	Instruction parameters.	One week to few months.
Product	Successively trying out and revising a combination of components in a natural setting until acceptable levels of performance have been attained.	Instructional effectiveness.	One to several "semester" units.
Installation	Integrating a product into programs which are combined with existing school instruction to determine procedures for operational use of a program without direct assistance of the developing agency.	User training and program management.	One to several "semester" units.
Manufacturing	Involving the agency which will assume direct editorial and production responsibility for a commercial program.	Program integrity and list cost.	One editorial cycle.
Marketing	Integrating a program into a licensee's extant portfolio and involving the sales force in the operational use of the training systems without direct assistance of the developing agency.	Communication and distribution.	One to several years.

tryout of the full Instructional System in 1972-73. Concurrently, development of the Training and Quality Assurance Systems was nearing completion. During 1973-74 these systems were integrated to insure that the comprehensive program can be installed under regular school operating conditions in a range of settings and with a consistently high level of pupil proficiency attainment on the Program outcomes.

LCS can now operate apart from the documentation of its R&D. One can use the Program effectively without any attention to this volume, since the relevant information here has been incorporated directly into the Program materials and procedures and the irrelevant information has been studiously excluded from the Program. Including the most-useful and the least-expensive and excluding the remainder is the essence of development. But this is easier said than done for LCS.

LCS PROTOTYPE TRYOUT 1969

Huberto Molina

Abstract

The 1969 Prototype Tryout of the English Language and Concepts Program for Spanish-Speaking Children is described. Materials and procedures used in the tryout are identified and pupil pre- and posttest results are presented. The pupil test form, and teacher and tutor reaction questionnaires are appended.

Eighteen LCS lessons and accompanying tutorial materials were tested at an urban elementary school in Southern California during November and December, 1969. Seventeen kindergarten and first-grade children were selected for the tryout on the basis of low pretest scores on a test covering the content of the 18 tryout lessons. The children were taught by the same teacher in two groups during the tryout.

Instruction was architected to feature vocabulary, syntax, and skills concerned with following classroom directions. In addition, attention was given to skills and structure in subject matter areas such as mathematics, science, and in preparation for reading and writing. Posttests assessed pupil proficiency on tryout outcomes. Program lessons and materials were revised on the basis of tryout assessment and teacher reaction data.

MATERIALS AND PROCEDURES

The tryout involved instructional procedures and materials for teacher use and tutorial materials and procedures for use by older students or aides.

Teacher Materials. The initial instruction for each skill was conducted by the teacher using the following materials:

1. A detailed lesson plan stating the skills to be acquired by children from the lesson and listing the procedures to be used during the lesson.
2. Flashcards for use with designated lessons. (Occasionally the teacher was asked to supply other easily accessible materials.)

Tutor Materials. Follow-up instruction for each skill was provided on an individual basis by intermediate-grade tutors using the materials below according to specific instructions contained with the materials:

1. The **Review** used objects and the pictures similar to those used in the classroom presentation.
2. The **Picture Booklet** provided cumulative language practice with emphasis on the combination of newly learned materials with previously learned material.
3. The **Game Activity** provided a less structured and more relaxed language experience.

Liaison with School

A teacher orientation and training meeting was held at the participating school three days prior to the tryout. Participating were the teacher who was to present the instruction, another kindergarten teacher who supervised the tutors, and the principal of the school. SWRL staff visited the school several times during the tryout to observe the program in operation and to answer teacher questions about the materials.

Data Collection

Several types of data were collected during the tryout. An 18-item test that sampled the content of the 18 lessons in the tryout was administered to pupils before and after instruction. (A copy of this measure is contained in Appendix A.)

Teacher reactions to the program were obtained using a Teacher Questionnaire (Appendix B) and Tutor Supervisor Questionnaire (Appendix C). The classroom teacher also maintained a log providing information about each program activity that was conducted.

RESULTS

Mean proficiency test scores are shown in Table 1.

Table 1

Preinstructional and Postinstructional Pupil Proficiency

Outcome Area	No. of Items	Pretest Raw Score	Pretest % Score	Posttest Raw Score	Posttest % Score
Vocabulary	6	2.6	43	5.2	86
Following Directions	6	3.9	65	5.9	98
Syntax	6	3.2	53	5.5	92
Total	18	9.7	54	16.6	92

It can be seen that the Program did contribute to the attainment of a high level of proficiency in each of the three outcome areas. On the total posttest, all children scored 67% or above. Only four of the 17 children attained a score of 67% or higher on the pretest.

The teacher reactions to the Program are shown in Appendices B and C on forms completed by the teachers. Teacher responses on these forms indicate a favorable reaction toward the Program.

Teacher suggestions and comments indicated that the tutorial materials required augmentation and revision as follows:

1. A tutorial training program should be developed to meet the specific characterisitcs of the LCS Program.
2. The materials to be read by tutors should be simplified. The tutor instructions and scripts were too difficult for the tutors.

APPENDIX A

TEST OVER LESSONS 1-18

A. Vocabulary	B. Following Directions and Classroom Procedures	C. Syntax
1. *What's this? (car, a car. It's a car.)	2. Stand up.	3. What's your name?
4. *What's this? (chair, a chair. It's a chair.)	5. Sit down.	6. **What do you have? (apple, an apple. It's an apple.)
7. *What's this? (flower, a flower. It's a flower.)	8. Raise your hand. 9. Put your hand down.	10. *(Explain that girl in card is Rosa.) Who has a flag? (Rosa, Rosa has a flag.)
11. *Is this a cat? (Yes, yes. It's a cat.)	12. Ask me, "Is this a cookie?" (Is this a cookie?)	13. *What do you see? (bell, a bell. It's a bell.)
14. *What color is this? (yellow. It's yellow.)	15. *(Give child cards 1 X X.) Give me the car.	16. **(Give child card No. 16.) What does Rosa have?
17. *Is this a dog or a cat. (dog, a dog. It's a dog.)		18. **I have a red balloon. What do you have? (a yellow balloon. I have a yellow balloon.)

*A picture of the object was shown to the child.

**A picture was given to the child before the question was asked.

APPENDIX B

TEACHER QUESTIONNAIRE

Directions: Please give candid answers to the following questions. You help us by being frank.

A. Mark each item by circling one of the numbers as follows:

1 = strongly agree with statement
2 = agree
3 = neither agree or disagree
4 = disagree
5 = strongly disagree

1.	Materials were supplied to me in easy-to-use-form	(1)	2	3	4	5
2.	The technical quality of the materials was poor.	1	2	3	4	(5)
3.	The objectives for each lesson were clear, worthwhile goals.	(1)	2	3	4	5
4.	The program demanded too much time from the teacher.	(5)	4	3	2	1
5.	The children liked the program as well as they like most activities in school.	5	4	3	2	(1)

B. How would you change the lesson plan format?

(The teacher comments are listed immediately below.)

- Keep lesson plan format as it is.
- The lesson format is easy to follow and presents material in good steps.
- Lesson should remain at 20 minutes length.
- Add optional activities e.g.
  (1) Read stories to children and show them pictures.
  (2) Introduce finger plays.
  (3) Flannel board stories using Ellie the puppet.
  (4) Do other "fun" things.

C. Please make any additional comments you care to regarding the program, SWRL staff performance, the materials, etc.

(The teacher comments are listed immediately below.)

The technical quality is fine, but optional activities are needed.

Since Mexican-American learners need success experiences, it is important that they learn some things very well before they go on to acquire other skills. In presenting colors, for example, it would be preferable to teach only one color per lesson, maybe two. If the children learn colors well, then a teacher can return to reviewing colors and be assured of a success experience.

APPENDIX C

TUTOR SUPERVISOR QUESTIONNAIRE

Directions: Please give candid answers to the following questions. You help us by being frank.

A. Mark each item by circling one of the numbers as follows:

1 = strongly agree with statement
2 = agree
3 = neither agree of disagree
4 = disagree
5 = strongly disagree

1.	Tutorial materials were supplied to me in easy-to-use-form.		(1)	2	3	4	5
2.	The tutors were able to carry out their tasks.	5th grade	1	2	(3)	4	5
		6th grade	(1)	2	3	4	5
3.	The tutors enjoyed participating in the program.	5th grade	(1)	2	3	4	5
		6th grade	(1)	2	3	4	5
4.	The learners enjoyed the tutorial program very much.						
5.	Adequate instructions were given to you.		5	4	3	2	(1)
6.	Tutors received adequate instruction.	5th grade	1	(2)	3	4	5
		6th grade	(1)	2	3	4	5

B. 1. Which segment of the tutorial component seemed most successful?
1. Review 2. Picture Booklet 3. Game (4) All were equally successful

2. Which segment of the tutorial component seemed to be least successful?
(1) Review 2. Picture Booklet 3. Game 4. All about the same - successful
5. All about the same - failed

C. Please make any additional comments regarding the program, SWRL staff performance, the materials, etc.

Teacher comments:

The tutorial materials were well organized and this I really appreciate.

The tutors carried out their task, enjoying it, and took very personal interest in the students. When a learner was absent from the group, the tutors would go out looking for him. Even the problem kids enjoyed the tutorial component.

In the case of fifth and sixth grade tutors, it is important that a supervisor direct the tutorial project to be sure that the tutors understand the procedures.

The 15-20 minute tutorial sessions were long enough. The three components within the tutorial program gave variety to the program.

Some of the tutors experienced difficulty in reading the material.

All needed materials were not listed on some of the *Review* sections.

LCS COMPONENT TRYOUT: 1970-71

Huberto Molina

Abstract

One hundred and thirty-five LCS lessons and accompanying follow-up materials were tested during the 1970-71 school year. Pupil and teacher generated feedback information was obtained, and two variants of the follow-up were evaluated during the course of the tryout.

During the 1970-71 school year, 135 lessons and accompanying follow-up materials of the English Language and Concepts Program for Spanish-Speaking Children were tried out in ten schools. The tryout began in late October and continued until June, 1971. The Program outcomes included both the production of oral English and following directions. The instruction required approximately 50 minutes daily.

Two instructional plans were tested in the tryout. In each plan initial instruction was presented by the teacher. In one variant fifth and sixth grade children served as tutors to provide follow-up activities on an individual basis. In the other, the teacher presented both the lesson and follow-up activities on a group basis. The two variants involved the same instructional materials.

PROCEDURES

Participants

The tryout took place in ten elementary schools in the East Los Angeles area and surrounding communities. An 18-item screening test (Appendix A) was administered to 440 children on an individual basis to identify children in kindergarten and first grade who understood little or no English. Two or more errors

were used as the criteria to determine children who could benefit from the program. Of the 440 children tested, 262 kindergarten and first grade children made two or more errors.

A 43-item pretest (Appendix B) was administered on an individual basis to those children who were selected for the program. On the basis of mean scores the schools were matched for purposes of evaluating the two instructional plans for follow-up activities. The other six schools used the materials and only completed questionnaires. The pretest descriptive statistics are shown in Table 1.

Table 1

Follow-Up Pretest Data Summary

Tutor Follow-up Activity	N	Pretest Mean Scores	SD
School A	39	17	11.1
School B	43	15	9.0
Teacher Follow-up Activity			
School C	40	18	12.5
School D	14	15	9.1

Materials

The program contains instructional procedures and materials for initial instruction and follow-up activities.

Initial Instruction — The initial instruction for each skill is conducted by the teacher using the following materials:

1. A detailed lesson plan stating the skills to be acquired by children and listing the procedures to be used.

2. Flashcards which are used with designated lessons.

Follow-up Materials – For each lesson two exercises and a game activity are provided.

1. **Exercise 1** – reviews the objectives taught in the classroom presentation.
2. **Exercise 2** – provides cumulative language practice with emphasis on the combination of newly learned material with previously learned material.
3. The **Game Activity** – provides the opportunity for a less structured language experience.

Operation

A teacher orientation and training meeting was held at the Laboratory in mid-October. Participating were the teachers who used the program, teachers who supervised tutors, and the principals of some schools. The participants met as a group and both approaches to follow-up were explained. Teachers from schools where tutors were to be used received instruction in tutor training. Those teachers from schools where the teachers were to present both the lesson and follow-up materials received training appropriate to their task. Classroom instruction began in late October.

Data Collection

Several types of data were collected during the tryout. The same measure administered as a pretest was used as the posttest. With an interval of a school year, the reactivity to initial testing was insufficient to warrant the complication of multiple test forms. The posttest was administered during the week beginning June 2, 1971.

Teacher reactions from the ten schools were obtained from a questionnaire. This questionnaire contained inquiries about each lesson and follow-up activity (Appendix C).

SWRL staff completed an observation report following each classroom visit to document how closely teachers followed the program procedures (Appendix D).

RESULTS AND DISCUSSION

At the end of the tryout (June 2, 1971), the classes had finished the lessons indicated in Table 2.

Table 2

Pacing Summary

Tutor Follow-up			
School A	**Lessons (of 135)**	**School B**	**Lessons (of 135)**
Class #1	79	Class #1	75
Class #2	75	Class #2	75
Class #3	79	Class #3	75
		Class #4*	64
Teacher Follow-up			
School C		**School D**	
Class #1	75	Class #1	79
Class #2	75		
Class #3	75		
Class #4	75		
Class #5	75		

*This class was excluded from the analysis since it did not complete lesson 75.

The pre- and posttest results were examined on the basis of the 36 criterion items taught in lessons 1-75. All children who took both pre- and posttests were included in the analysis.

As shown in Table 3, pupils acquired considerable proficiency

in both oral and non-oral English language skills irrespective of the plan for follow-up activity. Variability for each group within each follow-up condition was substantially smaller on the posttest. The mean total score on the pretest was 14.7 (41%). The mean total test score on the posttest was 33.5 (93%).

Observations made by LCS staff during the month of January indicated the following deviations from instructional procedures:

1. When the children answered correctly, there was no acknowledgement of the correct response. In classes where this was frequent, children exhibited a brief attention span and the teachers stopped to call for their attention or to reprimand them.
2. Other activities not related to the objectives were introduced during the lesson, such as drawing pictures and coloring.
3. For the follow-up activities children were responding by pointing instead of responding orally as specified.
4. Too much time was devoted to some activities at the expense of others.
5. Only part of a lesson was presented in a day.
6. The sequence of material presentation was not followed consistently.

Table 3

LCS Follow-up Evaluations

	Pretest					Posttest				
Tutor Follow-up	**N**	**O**	**NO**	**T**	**SD_T**	**N**	**O**	**NO**	**T**	**SD_T**
School A	32	9.6	5.8	15.4	9.6	32	23.2	10.8	34.0	2.0
School B	24	8.9	6.0	14.8	7.5	24	22.3	10.8	33.1	3.3
Teacher Follow-up										
School C	29	9.2	5.2	14.4	10.7	29	22.2	11.1	33.3	2.7
School D	12	8.5	5.8	14.3	8.4	12	22.8	10.7	33.4	3.1

Note: N = Number of children; O = Oral responses; NO = Non-oral responses; T = Total mean score; SD = Standard deviation.

7. Frequently the same individuals were called on rather than different individuals.

Teachers were reminded of the recommended procedures. During later observations, greater adherence was noted.

During both classroom observation periods, LCS staff reported that teachers did not know what to do when the Spanish-speaking child responded in Spanish. It was suggested that the teacher's manual offer some suggestions in this area. The teachers stated that they liked the program and indicated that the children using the program felt successful. This opinion was reflected in teacher questionnaire reactions. However, LCS staff noted that in schools where the teacher presented the follow-up activities, it was difficult to use the follow-up material which was designed to be used on a one-to-one basis. The size of the game material is appropriate only when used on a one-to-one basis, but is too small for class presentation.

On a one-to-five rating scale of difficulty (one being least difficult) teachers rated the material as 2 in terms of student difficulty. Again on a one-to-five rating scale which ranged from very enjoyable to not enjoyable the teachers rated the materials as 2.

PROGRAM REVISIONS

The following revisions are being incorporated into the program. Teacher comment and cost considerations provided the basis for modification. In view of pre- and postperformance and rating scores, there was no requirement for revision based on these two data sources.

Following is a description of comments revealed from questionnaires and the revisions that have been made:

1. The tryout revealed from teacher observation that it took a great deal of classroom time to determine which children had mastered the objectives of the lesson by presentation of the assessment exercise at the end of each lesson. During the presentation of the Learner-Learner Activity, the teacher knew which children had mastered the objective. The Assessment Activity was not followed by review activities, therefore it made no provision for remediation.

2. Teachers commented that it was difficult and time consuming to pass out the various separate segments of the tutorial component.
3. Teacher comment suggested the reduction of items in Exercise 2 in the Tutorial Component for it was taking too much time to present.
4. Teachers indicated that they wanted the pointer, used in the game, to be replaced by a more durable object.

The following revisions were made to the instructional program:

1. The daily assessment activity was eliminated and the teachers commented that the deletion was an improvement.
2. Teacher comment and cost consideration both indicated that the three tutorial segments be presented in one booklet. The segments are now printed back-to-back, four pages, 8½" x 11". They appear in a booklet called **Practice Booklet** and the three activities have been modified as follows:

   a. **Exercise 1**
      - Tutor flashcards have been eliminated due to cost and teacher reaction.
      - Pictures appear in the exercise, thus eliminating the need for flashcards.

   b. **Exercise 2**
      - The number of items has been reduced from 20 to 12.
      - Six items appear on each of the two pages. Since the exercise was being placed in a booklet, it was also feasible to reduce the number of items so that the typed material and illustrations would fit into the booklet form. Thus, teacher comment and cost consideration brought about this revision.

   c. **Game**

      The spinner is replaced by a die which is inexpensive and relatively indestructible.

APPENDIX A

SCREENING TEST

A. Vocabulary	B. Following Directions and Classroom Procedures	C. Syntax
Directions are in parentheses **Tester script is in capitals** **Acceptable answers are underlined**		Language and Concept Skills for Spanish Speakers Program

SCREENING TEST

*1.	WHAT'S THIS? car a car It's a car	9.	PUT YOUR HAND DOWN.	**15.	(Give child 3 cards. Include card No. 15) GIVE ME THE CAR.
2.	STAND UP	*10.	(Explain that girl on card is Rosa.) WHO HAS A CAT? Rosa Rosa has a cat	*16.	WHAT DOES ROSA HAVE? cat a cat Rosa has a cat
3.	WHAT'S YOUR NAME?	*11.	IS THIS A SHIRT? Yes Yes it's a shirt	*17.	IS THIS A DOG OR A CAT? cat a cat It's a cat.
*4.	WHAT'S THIS? chair a chair It's a chair	*12.	ASK ME, "IS THIS A GIRL?" Is this a girl?	**18.	(Give child card No. 18, yellow chair. Keep card No. 19, red chair.) I HAVE A RED CHAIR. WHAT DO YOU HAVE? yellow chair a yellow chair
5.	SIT DOWN.	**13.	WHAT DO YOU SEE? sweater a sweater		
**6.	WHAT DO YOU HAVE? hat a hat	**14.	WHAT COLOR IS THIS? yellow It's yellow		
*7.	WHAT'S THIS? house a house It's a house				
8.	RAISE YOUR HAND.				

*Point to appropriate picture on back of this card.

**Use flashcard whose number corresponds to question. Give to child or hold in front of him as appropriate.

APPENDIX B

PRE/POSTTEST

LANGUAGE AND CONCEPT SKILLS FOR SPANISH SPEAKERS PROGRAM

Pre/Post Test

Student _____
Teacher _____
School _____
AM or PM

Directions are in parentheses
Tester script is in capitals
Acceptable answers are underlined

	Pretest	Posttest
	correct response +	
	incorrect response –	

*1. WHAT'S THIS?
cat a cat it's a cat — 1. _____ _____

2. STAND UP — 2. _____ _____

3. WHAT'S YOUR NAME? — 3. _____ _____

4. SIT DOWN — 4. _____ _____

**5. (Give child flashcard 1)
WHAT DO YOU HAVE?
apple an apple it's an apple — 5. _____ _____

6. RAISE YOUR HAND — 6. _____ _____

7. PUT YOUR HAND DOWN — 7. _____ _____

*8. (Explain that girl in picture is Rosa)
WHO HAS A BOOK?
Rosa Rosa has a book — 8. _____ _____

*9. IS THIS A SHIRT?
Yes Yes, it's a shirt — 9. _____ _____

10. Ask me, "Is this a girl?"
is this a girl? — 10. _____ _____

*11. WHAT DO YOU SEE?
a pair of shoes some shoes shoes — 11. _____ _____

*12. WHAT COLOR IS THIS?
yellow it's yellow — 12. _____ _____

*Point to illustration on picture sheet with same number as the question.
**Give flashcard to child or hold in front of him.

**13. (Give child 3 cards. Include card No. 2)
GIVE ME THE CAT. 13. _____ _____

**14. IS THIS A DOG OR A CAT?
dog a dog it's a dog 14. _____ _____

**15. (Give child 3 cards. Include card No. 3)
GIVE ME THE RED TRUCK. 15. _____ _____

16. (Keep card No. 4, give child card No. 5)
I HAVE A RED BALLOON. WHAT DO YOU HAVE?
a blue balloon I have a blue balloon 16. _____ _____

*17. WHAT SHAPE IS THIS?
square it's a square 17. _____ _____

18. (Provide child with a piece of paper)
GIVE ME A PIECE OF PAPER. 18. _____ _____

*19. HE HAS A RED CLOCK. WHAT DOES SHE HAVE?
She has a green clock a green clock
green clock 19. _____ _____

*20. THIS BOY IS SHORT. IS THIS BOY SHORT?
(Point to tall boy.)
no, he's tall no 20. _____ _____

*21. POINT TO THE TRIANGLE. 21. _____ _____

*22. ARE THE TWO BOXES THE SAME SIZE?
yes, they are yes 22. _____ _____

*23. THIS IS MARY AND THIS IS ROBERT.
WHO IS THINNER?
Mary Mary is Mary is thinner 23. _____ _____

*24. POINT TO THE ROW WITH TWO BOOKS. 24. _____ _____

25. (Give child three pencils)
WHO HAS THREE PENCILS?
I do I have three pencils me 25. _____ _____

*26. ARE THESE SHAPES THE SAME OR DIFFERENT?
different they're different 26. _____ _____

*27. POINT TO THE BIGGEST ANIMAL. 27. _____ _____

*28. HOW MANY CHAIRS ARE IN THE ROOM?
six 28. _____ _____

*29. WHAT IS MARY WEARING?
she's wearing a dress a dress

29. _____ _____

*30. POINT TO THE GLASS OF MILK.

30. _____ _____

*31. WHAT IS NEXT TO THE HOUSE?
a tree tree

31. _____ _____

*32. HOW MANY CIRCLES DO YOU SEE?
four

32. _____ _____

*33. (Point to the first car)
THIS IS THE FIRST CAR. POINT TO THE THIRD CAR.

33. _____ _____

*34. IS JOE WEARING A HAT?
no no, he isn't

34. _____ _____

*35. WHICH DOG IS SLEEPING? POINT TO HIM.

35. _____ _____

*36. WHERE IS THE CAT? UNDER OR ON THE TABLE?
under the table

36. _____ _____

*37. SHOW ME THE BALL THAT IS BETWEEN THE BOXES.

37. _____ _____

*38. SHOW ME THE BALL THAT IS ON A BOX.

38. _____ _____

*39. SHOW ME THE BALL THAT IS INSIDE A BOX.

39. _____ _____

*40. IS JOE EATING OR PLAYING?
eating Joe's eating

40. _____ _____

*41. IS JOE RUNNING?
no he isn't, no

41. _____ _____

*42. HERE IS A GLASS OF WATER. WHAT IS JOE DOING?
he's drinking he's drinking water

42. _____ _____

*43. THIS IS A GIRL. POINT TO HER HEAD.

43. _____ _____

APPENDIX C

LANGUAGE AND CONCEPT SKILLS PROGRAM
TEACHER LESSON EVALUATION FORM,
MEAN SCORES, AND TEACH COMMENT

A. Directions: Please fill in the amount of time spent on each lesson and follow-up session. Then circle the appropriate number for the four parts below.

TIME SPENT (minutes)		FOR THE CHILDREN THE LESSON WAS . .		FOR ME THE LESSON WAS . .	
Lessons	Follow-up Session	1. easy 2. 3. 4. 5. difficult	1. very enjoyable 2. 3. 4. 5. not enjoyable	1. easy to use 2. 3. 4. 5. difficult to use	1. enjoyable 2. to present 3. 4. 5. not enjoyable
Tutor/ Teacher Follow-up Activity 25	25	1 (2) 3 4 5	1 (2) 3 4 5	1 (2) 3 4 5	1 (2) 3 4 5

B. The teachers comments are listed below:

Lessons:

- Colors such as pink and red should be consistent. There are different hues that make these colors ambiguous.
- At times materials have been difficult to locate or make (lessons 1-30).
- The children are learning and the program has helped them a great deal.
- We are very pleased with the content of the LCS materials and the sequencing which allows for plenty of review.
- Optional part of lesson should be part of lesson for child enjoyment and involvement.
- The assessment in each daily lesson takes too long. The daily assessment isn't needed, for the learner-learner activity makes apparent how well the child has mastered the objectives of the lesson.
- The elimination of the daily assessment improved the materials.
- In the follow-up activity the number of items in Exercise 2 should be reduced.

- The reductions of items in Exercise 2 was an improvement of the materials.
- The flashcards should be eliminated in the follow-up activity.
- The spinner used in the follow-up activity wears out too easily. It should be replaced.

Follow-up activities:

- Children like their tutors.
- Tutors enjoy being tutors.
- Tutors feel important.
- Tutors become more proficient in their use of English, in reading, and in listening.
- Children who are being tutored benefit by the added practice and gain a friend.
- The children are becoming more interested in the game. They have already developed a competitive spirit and want to win.
- The tutorial component relieves the teacher of large group instruction for twenty five minutes per day. This gives her time to work with individuals.
- Exercises 1 and 2 should be written horizontally instead of at right angles to the illustrations so that tutors don't have to keep twisting the exercises to read them.

General comments:

- I enjoy the lessons and love the lesson plans.
- This program gives the children a feeling of success.
- We are very pleased with the content of the LCS materials and with the sequencing of the lessons with follow-up activities which allow for plenty of review.
- All in all I feel that the children are learning and that lessons have helped them a great deal.

APPENDIX D

LANGUAGE AND CONCEPT SKILLS PROGRAM
OBSERVATION FORM COMMENTS

January 1971

School A

- Good class response.
- The children move and talk a lot but the teacher keeps pace with them, asking them questions and getting responses.
- The teacher has trouble keeping tutors and is forced to double up at least one child per day.

School D

- Teacher conducted lesson at a rapid pace and did not stop to give praise to the children for their correct responses.
- Children have almost no attention span and the teacher has to stop frequently during teaching to call their attention.
- It's difficult for the children to understand the concepts of MORE and FEWER. The teacher should go slower and spend more time with fewer children at a time.
- While using the game the children responded by pointing instead of orally.
- The teacher's presentation of the Learner-Learner Activity was poorly presented. She didn't allow interaction between children.
- Children have trouble turning pages and reading the numbers in the Practice Booklet.
- The teacher has patience and praises the children each time they answer correctly.

MARCH 1971

School A

- Good class response.
- Teacher should move faster between sections.

School B

- Teacher spent much of the lesson time filling out attendance cards and collecting money for nutrition, thus allowing only 15 minutes to the LCS lessons.
- Teacher was very good in handling correct and incorrect learner responses.
- Teacher used the word "rude" many times to reprimand the children.
- Pacing was slow due to time spent on reprimanding the children.
- There should be a section in the manual giving instructions to the teacher on *what to do* when children respond correctly in Spanish instead of English.
- The teachers should be more informed on the process of teaching English to Spanish-speaking children.
- Teachers should be tactful and know what to do and how to make it enjoyable for the children to learn English.
- Tutors are very enthusiastic about participating in the program.
- When the teacher is administering the program to the entire class, she should call upon all individuals so all the children get an equal opportunity to participate.

School C

- The teacher begins the lesson with the Practice Booklet and has difficulty organizing the class for instruction.
- Teacher called upon a specific individual most of the time rather than on several individuals.
- Teacher begins class with the follow-up session.
- LCS program should stress the importance in getting each child to contribute as a member of the class.
- The teacher or aide should provide more individual instruction and give special encouragement to the child with language problems.

- We should stress the importance in rewarding a child for successful completion of tasks.
- We should remind the teacher to keep in mind that the children are not only learning important concepts' skills, but a foreign language also.
- Teaching the child to listen helps develop an awareness of sight and sound discrimination.

School D

- The program is now being used correctly and effectively.
- The children have improved a great deal.
- Game spinner should be replaced with more durable object.

LCS PRODUCT TRYOUT 1971-72

Huberto Molina

Abstract

The tryout exercised the materials and procedures of the LCS instructional system and a prototype version of the teacher training system. The scope of the tryout is described, and pupil test results, teacher comments, and pupil attendance records are presented.

During the 1971-72 school year, a tryout of the LCS program was conducted involving 8 school districts, 33 schools, 43 classes, and 883 Spanish-speaking children. It was initiated in October, 1971 and terminated in June, 1972.

The tryout exercised, under standard school conditions, the materials and procedures of the LCS instructional system and included a prototype version of the teacher training system. Pupil test results, teacher comments, and pupil attendance records were used to measure system effectiveness.

TRYOUT SCOPE

Seven of the participating districts are located in Southern California and one is located in central California. The tryout schools were selected to represent various demographic situations: schools in a large Spanish speaking community, schools in the inner city, schools in pocket areas surrounded by English speaking communities, and country schools serving migrant families.

Teachers assigned children to participate in the tryout on the bases of a SWRL-developed Entry Test, a phonological rating, and their own judgment of the pupils' English language proficiency. Test score and phonological rating cut-off points were not mandated. The teacher was instructed to select only those

children who clearly lacked the English language proficiency required for success in the basal reading program, using the Entry Test and phonological rating to guide the decision.

TEACHER-TRAINING PROCEDURES

The LCS teacher-training system included two types of training sessions: one for teaching district personnel, such as supervisors, to conduct training sessions for teachers, and one for training teachers directly. Training materials and procedures were designed for maximum exportability. Filmstrips, tapes, and printed booklets were packaged to ensure high teacher-training reliability across sessions.

Each district trainer was equipped to conduct as many teacher-training sessions as required. Ordinarily, only one or two sessions were required with a subsequent follow-up session for makeups. Teacher trainers from the participating school districts met at SWRL in October, 1971 for a two hour training session. The purpose of the session was to prepare them to use the teacher-training program to prepare teachers to present the lessons and follow-up materials. Since this was a SWRL field tryout, procedures for record-keeping and data forms to be returned to the Laboratory were also discussed.

ASSESSMENT MEASURES

Selection of Items

The response items included in the Entry and End-of-Program Tests were pre-classified into three levels of syntactic difficulty. Imperatives involving psychomoter responses, e.g., ***Point to a hat***, were classified as Level I items; oral concept discrimination responses, e.g., ***Is this a book or a pencil?***, were classified as Level II. Concept description items involving production of phrases and sentences were classified according to syntactic and lexical difficulty and keyed to the lesson in which they received initial emphasis: Level I items, Lessons A-21; Level II items, Lessons 22-48; and Level III items, Lessons 49-75. In addition, items were classified on the basis of math/science and social studies

content. Item classifications for the Entry and End-of-Program Tests by syntactic difficulty level and concept area are presented in Table 1.

Entry Test

The Entry Test consisted of 40 items: 24 items required psychomotor responses to imperatives in standard English, and 12 more involved oral concept discrimination responses. Four items were concept description items consisting of one syntactic pattern, questioning the verb phrase, i.e., ***What is (noun) doing?*** Teachers also rated each child's English phonological control on a 1-4 scale, with 1 indicating poor phonological control and 4 indicating considerable control.

Where the Program was initiated after the start of the school year, the teachers started with the instructional unit judged by them to be most appropriate to the needs of their students.

Unit Assessment

Following each 15 lessons, a unit assessment consisting of 10 items was individually administered to each child. The more complex items within each instructional unit were sampled to assess student unit proficiency as economically as possible. Additional review and instruction were provided for children not demonstrating adequate end-of-unit proficiency.

End-of-Program Test

The End-of-Program Test was administered to all children in LCS irrespective of whether they had completed all 80 lessons. Thirty-eight of the 60 items in the test required concept description responses. The Entry Test required only four concept description responses to one pattern type, while the End-of-Program Test included eight pattern types. Pattern types and examples are listed below.

Table 1

Pre- and Posttest Item Sampling by Syntactic Difficulty Level and Concept Areas

Test	Concept Area	Syntactic Difficulty Level I No. Items	I Percent	II No. Items	II Percent	III No. Items	III Percent	Total No. Items	Total Percent
Entry	Math and Science	7	17.5	0	0	0	0	7	17.5
	Social	17	42.5	13	32.5	3	7.5	33	82.5
	Combined Total	24	60.0	13	32.5	3	7.5	40	100.0
End-of-Program	Math and Science	11	18.3	11	18.3	18	30.0	40	66.7
	Social	9	15.0	9	15.0	2	3.4	20	33.3
	Combined Total	20	33.3	20	33.3	20	33.4	60	100.0

Pattern	Examples
1. Questioning the subject	*What's in the rectangle?* *Which is the heaviest one?* *Who is last in line?*
2. Questioning the object	*What does he have?* *What's José wearing?* *Which ones does she have?*
3. Questioning the verb phrase	*What is he doing?*
4. Questioning the number	*How many children do you see?*
5. Questioning the locative prepositional phrase	*Where's the coffee?*
6. Yes/no questions	*Is this a book?* *Do you see a horse?*
7. Questioning the predicate adjective	*What color is the book?*
8. Questioning the predicate nominal	*What's this?*

Table 1 compares the Entry and End-of-Program Tests in terms of item distribution across content areas and syntactic difficulty levels. The Entry Test principally sampled from syntactic Levels I and II and employed only one pattern-type: questioning the verb phrase. While the Entry Test used only one syntactic pattern evoking concept description responses, the End-of-Program Test used seven patterns, in addition to the pattern used in the Entry Test. The Entry Test contained seven math/science items and the End-of-Program Test had forty math/science items. Math/science item-content is understandably more difficult since the vocabulary items are usually classroom

related technical words, e.g., sets, numbers, colors, geometric shapes, etc.

ANALYSIS OF ASSESSMENT DATA

Table 2 shows the number of pupils selected for tryout participation by grade level. Of the 883 Spanish-speaking students tested, teachers selected 630 for participation in LCS. Almost half of those selected were in kindergarten; 73.3% were from combined K-1 levels. The remaining 27% were evenly distributed across the other grade levels. Entry Test results for 18 pupils were not retrievable, thus 612 pupils were tracked through the Program.

Table 2

Pupils Selected for LCS Tryout Participation

	Total Students Selected		Students Tested But Not Selected	
Grade	**Number**	**Percent**	**Number**	**Percent**
K	308	48.9	95	37.5
1	154	24.4	60	23.7
2	39	6.2	23	9.1
3	37	5.9	18	7.1
4	22	3.5	8	3.2
5	33	5.2	8	3.2
6	30	4.8	7	2.8
ungraded	7	1.1	34	13.4
Total	630	100.0	253	100.0

Tables 3 and 4 show the descriptive data on Entry Test performance and the phonological rating for students selected for

Table 3

Entry Test Descriptive Data

	Students Selected			Students Not Selected			Mean Difference
Grade	Number	Score Mean (1)	Standard Deviation	Number	Score Mean (2)	Standard Deviation	(2) – (1)
K	305	23.08	13.30	95	34.41	8.60	11.33
1	147	19.81	14.88	60	34.72	9.55	14.91
2	39	17.74	16.49	23	37.08	7.72	19.34
3	37	20.51	18.53	18	34.43	10.31	13.92
4	22	13.73	16.20	8	25.98	13.14	12.25
5	32	10.16	15.32	8	36.04	4.00	25.88
6	30	13.20	15.07	7	29.37	9.71	16.17
unknown	7		–	34	35.08	5.13	–
Total	619	20.14	14.97	253	34.42	8.19	14.28

Table 4

Phonological Rating Descriptive Data

	Students Selected			Students Not Selected			Mean
Grade	Number	Mean Rating	S.D.	Number	Mean Rating	S.D.	Difference
K	291	1.83	1.00	95	2.42	1.05	.59
1	139	1.71	.92	60	3.00	1.10	1.29
2	36	1.64	.80	23	3.21	.72	1.57
3	34	1.68	.98	18	2.60	.94	.92
4	21	1.19	.40	8	1.63	1.19	.44
5	27	1.19	.40	8	2.29	1.60	1.10
6	30	1.20	.41	7	1.00	.00	−.20
unknown	–	–	–	34	2.25	.95	–
missing data	41	–	–	–	–	–	–
Total	619	1.69	.93	253	2.56	1.13	.87

participation in LCS as contrasted with the students not selected. Children who were not selected for instruction attained a mean score of 34.42 on the Entry Test, 14.28 points higher than the mean raw score of those selected for LCS participation. As shown in Table 3, at each grade level the Entry Test mean score differences between selected and not selected students range between 11 and 26 points.

Mean Phonological Ratings for each grade are shown in Table 4. When comparing students selected with those not selected, the results are similar to those obtained with the Entry Test. By and large, students who were selected by the teachers for participation in LCS were those who could most benefit from English language instruction before entering the basal reading program.

Assessment Results

Table 5 shows the descriptive data, by grade, for all LCS assessments. Mean Entry Test scores range from a low of 10.16 for the fifth graders to a high of 23.08 for the kindergarteners. A similar trend is reflected in phonological rating, with the range from 1.20 for the sixth graders to 1.83 for the kindergarteners. Irrespective of the mean performance level on the Entry Test, all classes attained a high level of proficiency on the 60-item End-of-Program Test. The posttest mean score of 53.21 represents 89% of the total possible criterion referenced items.

Comments obtained from the teachers contributed possible explanations for the low Entry Test and high End-of-Program Test performance of the older children:

1. Some children in the upper elementary grades had entered this country recently (low average phonological scores on the Entry Test support this view). Once the children mastered the necessary English language skills, they were able to use knowledge acquired via their native language to make rapid progress in LCS.
2. LCS offers many success experiences to those children who have encountered great difficulty in the school curriculum. Older children who have experienced failure due to language

Table 5

Descriptive Data for All LCS Assessments by Grade

	Initial Assessment Measures						End-of-Program			Absence Rate			Unit 1		
	Entry Test			Phonological Rating											
Grade	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
K	305	23.08	13.30	291	1.83	1.00	200	51.30	7.40	269	6.27	14.13	212	8.00	2.56
1	147	19.82	14.88	139	1.71	.92	85	55.08	4.39	119	3.67	9.28	110	8.85	2.06
2	39	17.74	16.49	36	1.64	.80	26	55.46	5.63	35	3.71	10.57	33	8.45	2.49
3	37	20.51	18.53	34	1.68	.98	17	53.29	6.93	33	.61	2.47	26	8.31	2.02
4	22	13.73	16.20	21	1.19	.40	10	56.40	2.22	21	.67	2.31	17	8.53	1.94
5	32	10.16	15.32	27	1.19	.40	18	56.78	3.84	26	.15	.78	22	8.36	1.94
6	30	13.20	15.07	30	1.20	.41	14	58.07	2.87	30	2.33	7.20	24	7.88	2.23
Total	612	20.30	14.95	578	1.69	.93	370	53.21	6.65	531	4.43	11.61	444	8.29	2.36
	Unit 2			Unit 3			Unit 4			Unit 5			Unit 6		
K	241	9.07	1.78	198	9.92	1.72	204	9.40	1.23	150	8.24	1.79	101	8.50	1.92
1	107	9.21	1.60	101	9.17	1.45	94	9.63	.93	85	9.22	1.26	46	9.39	.93
2	29	9.14	1.64	30	9.07	1.41	28	9.68	1.19	25	9.12	1.48	17	9.59	.71
3	24	8.17	2.33	20	8.70	1.69	19	9.05	1.84	14	8.64	1.15	4	9.00	1.41
4	14	8.93	1.27	11	9.00	1.26	13	9.38	1.12	8	9.13	1.36	8	9.63	.52
5	19	8.95	1.27	18	8.33	1.65	20	8.65	1.42	17	8.30	1.72	14	8.93	1.33
6	21	9.00	1.76	15	8.47	1.51	17	9.12	1.41	11	9.55	.82	8	9.75	.71
Total	455	9.03	1.73	393	8.94	1.61	395	9.41	1.23	290	8.63	1.64	198	8.93	1.58

difficulty reacted positively to the experiences offered by LCS.

3. Older children in the Program produced higher rates of response and were more confident than the younger children.

In addition to possible explanations mentioned by the teachers, older children were absent less than the younger children. Absenteeism during the Program, shown in Table 5, was greatest among kindergarteners, who averaged over six days absent with a standard deviation of 14.13 days. This is a higher mean absentee rate than that of the older children. However, Table 5 shows that irrespective of Entry Test performance and absentee rate, the mean scores on the six unit assessments were high, ranging from 8.29 (82.9%) on Unit 1 to 9.41 (94.1%) on Unit 4.

Student Participation in the Program

Table 6 shows Entry Test and phonological rating descriptive

Table 6

LCS Entry and Phonological Test Descriptive Data

		Entry Test Score		Phonological Rating	
Category	Number	$\bar{X}$	S.D.	$\bar{X}$	S.D.
Completed Program	370	19.65	14.65	1.70	.89
Transferred Out of School	48	19.40	12.36	1.47	.78
Returned to Regular Instruction	137	21.64	16.84	1.76	1.06
Incomplete Data	13	25.23	11.42	2.00	1.00
Absent at Time of Final Test	43	21.12	14.10	1.80	1.10
Total for Whom Entry Test Scores were Received	612	20.23	14.99	1.69	.93

data for students by program completion category. Two things should be noted. First, the ostensible "attrition" rate reflects neither experimental mortality nor student failure. The only students not accounted for are the 31 (2.1%) with incomplete data. A large number of students, 137 (22.4%), were removed from the Program on the basis of rapid LCS progress and a judgment that they were ready to enter the schools' basal language program. Only 48 (7.8%) actually moved from the district, indicating greater demographic stability than is often alleged. Those who were absent at the time of the final test (43, or 7.0%) were reported by teachers as having actually completed LCS.

Second, the children who completed LCS, and on whom the effectiveness of the Program is based, possessed no greater (sometimes less) English language proficiency at the time of entry than those who moved from the district or those whose data were lost due to logistic vagaries. Of the 612 students, only 370 completed LCS. The table indicates that the 242 children who did not complete the Program were not significantly different from the participating students in terms of entering language proficiency, as measured by performance on the Entry Test and phonological rating.

Tracking Student Progress

The unit assessment data yield further information concerning the LCS progress of individual students. Seven "completion status" categories were established, and the status of each student was tracked throughout the six units. The unit "completion status" categories are:

1. Completed the Unit
2. Skipped the Unit
3. Absent at Time of Unit Test
4. Did Not Complete the Unit
5. Score Was Not Received for the Unit Assessment
6. Transferred Out of School
7. Returned to Regular Instruction

Table 7 shows the number of students by completion status category and their entry language proficiency scores across all instructional units and the End-of-Program Test. Category 1, "completed," indicates that the students actually took the end-of-unit assessment. Status categories 2-5 include youngsters who did not take the end-of-unit test for the reason shown, but remained in LCS. The entries in these categories across the units indicate entries peculiar to that unit and are not cumulative. Categories 6 and 7, however, are cumulative across units because once a student falls into either of these categories he is out of the Program and will not appear in any other category in future units. For example, in category 6 ten children transferred out of school before completing Unit 1, and the number cumulated to 28 in Unit 2. The cumulative number reflecting mobility ultimately reduced the total number of children remaining in the Program to 430 by the end of Unit 6 and 427 by the End-of-Program Test.

The children who returned to regular instruction in the earlier units of LCS possessed greater entering language proficiency than those who remained. By tracking category 7 entries across units, it is apparent that children with high Entry Test scores returned to the regular instructional program early in the LCS Program. Those who did well on the Entry Test were usually grouped and as soon as practicable removed from LCS. This is supported by teacher comment. As the children progressed through the units, children with lower scores on the Entry Test begin to join the school's regular instructional program on the basis of increased English language proficiency. Children who returned to regular instruction during Unit 1 had a mean Entry Test score of 32.11, while those who returned during Unit 6 had a mean score of 21.74. Overall, the children who returned to the regular instructional program had a mean Entry Test score of 21.64 as contrasted with 19.65 for those entering and completing LCS. Corroborative data from teacher comments indicate that during initial instruction, LCS performance is highly related to the child's entering language facility. Progressively, however, LCS's

Table 7

Entry and Pronunciation Test Results by Instructional Unit Completion Status

	Unit 1					Unit 2					Unit 3					Unit 4				
		Entry		Pronun.			Entry		Pronun.			Entry		Pronun.			Entry		Pronun.	
Status	N	X̄	S.D.	X̄	S.D.	N	X̄	S.D.	X̄	S.D.	N	X̄	S.D.	X̄	S.D.	N	X̄	S.D.	X̄	S.D.
1. Completed	444	18.75	14.52	1.60	.86	455	20.37	14.80	1.73	.95	393	19.74	14.60	1.70	.87	395	20.81	14.86	1.77	.97
2. Skipped	99	19.17	16.57	1.96	1.08	48	29.08	13.30	1.38	.54	55	21.45	17.02	1.90	1.30	43	15.56	14.48	1.30	.52
3. Absent	13	28.92	11.32	2.36	1.02	18	21.50	15.34	1.73	1.16	25	14.04	14.90	1.55	1.03	13	15.46	16.31	1.73	1.30
4. Did not Complete	3	33.33	11.55	1.67	.58	7	15.71	18.13	1.33	.52	19	16.89	15.33	1.75	.85	27	15.56	14.92	1.59	.51
5. No Data	8	34.61	3.20	2.25	1.03	10	30.70	8.94	2.00	1.05	10	30.70	8.94	2.00	1.05	11	29.45	9.04	2.09	1.04
6. Transferred from School	10	27.90	9.19	1.80	1.03	28	20.93	11.23	1.43	.74	37	17.76	12.22	1.38	.76	4	17.51	12.04	1.39	.74
7. Returned To Regular Instruction	35	32.11	11.61	1.80	1.10	46	28.96	13.35	1.72	.98	73	25.36	15.46	1.75	1.00	82	22.88	16.22	1.64	.94
Total*	567					538					502					489				

	Unit 5					Unit 6					End-of-Program Test				
1. Completed	290	20.52	14.55	1.76	.94	190	21.80	14.01	1.77	.94	370	19.65	14.65	1.70	.89
2. Skipped	74	17.60	15.76	1.42	.68	111	20.51	15.84	1.90	.79	6	20.00	10.49	2.00	1.41
3. Absent	18	24.56	17.61	2.06	.94	16	17.69	14.25	1.44	1.07	38	12.66	15.32	1.58	.87
4. Did not Complete	47	14.79	13.75	1.33	.48	93	16.54	14.19	1.51	.70	13	25.23	11.42	2.00	1.00
5. No Data	11	29.45	9.44	2.09	1.04	12	29.92	9.14	2.09	.81	0				
6. Transferred from School	42	17.83	12.08	1.39	.74	46	18.54	12.30	1.47	.91	48	19.40	12.36	1.47	.78
7. Returned To Regular Instruction	130	22.74	16.45	1.81	1.08	136	21.74	16.75	1.77	1.06	137	21.64	16.84	1.76	1.06
Total*	440					430					427				

*The Total is cumulatively adjusted to reflect the number of pupils actually in the Program, e.g., a combined 45 pupils left the District and Program during Unit 1, leaving a total 567 pupils in the Program.

effectiveness reduced the correlation, and student performance becomes more independent of entering language facility, i.e., irrespective of entering English language proficiency, children perform well in LCS.

Table 8 describes how well children within specified entry score ranges performed throughout LCS. "Units 1-3" shows performance on the first half of the Program and "Units 4-6" shows performance on the second half (in terms of combined unit assessments' raw scores).

Table 8

Unit Assessment Test Descriptive Data
by Entry Test Score Ranges

Entry Test Raw Score Ranges	Assessment Raw Scores*								
	Units 1-3			Units 4-6			End-of-Program		
	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
1-10	97	24.86	4.61	51	27.24	2.87	114	52.49	7.51
11-20	50	26.62	3.65	26	25.15	4.49	47	51.04	7.45
21-30	60	27.55	3.44	38	27.74	2.91	67	53.64	5.61
31-40	99	28.54	2.26	58	28.67	2.77	112	55.13	5.06
Total	306	26.86	3.88	173	26.57	3.32	340	53.39	6.55

*N's will vary as function of pupil placement and advancement procedures.

As children progressed through the Program, those with low scores on the Entry Test approached the performance level of the children who scored high on the Entry Test. On Units 1-3 there is a 3.68 difference between the lowest scoring group and the highest scoring group; on Units 4-6 there is only a 1.43 difference.

In sum, LCS as used in the tryout accomplished the prespecified instructional objectives at a high level of proficiency. The Program proved manageable by teachers and remarkably robust under a wide range of school and classroom conditions.

LCS CLASSROOM OBSERVATIONS: 1971-72

Huberto Molina

Abstract

Class observations provided an important source of information in developing LCS. This paper describes observation procedures and the data collected during the 1971-1972 tryout of the Program. Inferences and implications for revisions that are incorporated into the Program are discussed.

PURPOSE OF CLASSROOM OBSERVATIONS

The purpose of the observations was to document the following use procedures:

1. Protocols teachers and tutors used in presenting the instruction.
2. Accommodations made for the various age groups in the Program.
3. Fluency and accuracy of responses to the instruction among children of different age groups.
4. Description of student syntactic and phonological control in the two observations.
5. Teacher comments regarding strategies or adaptations incorporated into the Program to accommodate different age groups.
6. General comments of teachers and school officials during the observations.

SELECTION OF OBSERVATION CLASSES

Nine of the ten classes observed were composed either of K-1 children or of grade 2-6 children. A minimum of 11 children per class was used as a partial criterion for selecting K-1 classes. Five children per class was the criterion for selecting 2-6 classes. The tenth class was included because the teacher was using pretest

data to adjust the pace in presenting the criterion items within a block of 15 lessons. This was a unique application of LCS assessments for they had been designed for postassessment use only.

OBSERVATION REPORTING FORMS

Prior to each observation the following information was entered on an LCS Observation Form. (A sample form is attached.)

- Teacher's name
- School's name
- Observer's name
- Date
- Lesson number
- Number of children in each class
- Student's name
- Student's Entry Test Score and Phonological Rating
- Grade level for each student

Completion of the form prior to the observation made it possible for the observer to identify a child with his entry performance.

PROTOCOLS USED IN PRESENTING INSTRUCTION

Teacher Presented Materials

Approximately 25 minutes of instruction should be provided by the teacher who is working with the pupils in a group situation. Each lesson is scripted so as to maintain control over the introduction and practice of lexical, syntactical and phonological content. Of the ten classes observed only four teachers presented the lessons according to prescribed LCS procedures. Six teachers departed from the procedures in the following ways:

Time recommendation:

1. The teachers spent as much as 25 minutes on the review section, which is designed as a five minute activity, and did not teach beyond that section.
2. Some teachers did not pace themselves and, consequently, presented part of a lesson on one day and the rest on the following day.

3. Several teachers took as much as 50 minutes to present the lesson instead of the specified 25 minutes.

Lesson improvisation:

Some teachers presented the specified content material in their own teaching style. They introduced additional language games and activities, only some of which related to the lesson outcomes.

Person presenting instruction:

In several classes, the teacher divided the class into two groups. She taught one group and an aide taught the other group.

Follow-up Activities

After the presentation of a lesson each pupil is to receive approximately 25 minutes of additional practice on the lesson just completed, working individually with a fifth or sixth grade tutor. The tutorial session was presented according to prescribed LCS procedures in only three classes. The following procedural departures were noted in seven classes:

Presentation of materials:

1. Four teachers did not use tutors. They or an adult aide presented the tutorial session.
2. In three classes children answered questions in the sequence they appear in the tutorial materials. Upon completion, the tutors presented the questions out of sequence as additional practice.
3. In one class tutoring was based on a lesson not completed by the teacher. Consequently, the children were learning new material instead of reviewing previously presented material.
4. One teacher in a K-3 school used third-graders as tutors. Some of these tutors experienced difficulty in reading the materials.

The game:

1. In some classes tutors varied the presentation of the game by not using dice; instead they alternated with the children in answering the questions.

2. In another class tutors deleted the use of situations where a child goes back a space because the supervising teacher wanted to avoid negative situations.

ACCOMMODATIONS ACCORDING TO AGE GROUPS

The Program is designed for children in the primary grades. There are no instructions in the materials regarding grouping or accommodation to different ages of children. The only accommodation observed was the pacing of the lessons. Older children covered the same material at a faster rate. Division into groups depended on how many children were from the various grades. In some schools a division was made between young kindergarten children and older kindergarten children. The tutors presented the materials without regard to different age groups.

RESPONSE VARIATION ACCORDING TO AGE GROUPS

All children, regardless of age, appeared to enjoy both the teacher-presented instruction and the tutorial materials. Grades 2-6 pupils produced a higher rate of response and seemed more confident than the younger children. The tutors expressed pride in being able to present the follow-up materials to the younger children.

DESCRIPTION OF STUDENT SYNTACTIC AND PHONOLOGICAL CONTROL IN THE TWO OBSERVATIONS

During the first observation children were performing within the structured format of the program. In the second observation they were conversing freely, recombining syntactic structures, and committing very few errors. During both observations, although to a lesser degree in the second, the children were imposing the Spanish grammatical system on the English system, as in *I have ten years old* for *I am ten years old*. By the second observation there were fewer errors of this type, for the materials take syntactic interference into account. In the second observation there was a noticeable reduction of:

1. Mumbled responses: This had made it difficult to determine

whether language production problems were due to conceptual, syntactic, or phonological difficulties.

2. Incorrect formation of plurals:

   bus(ez) for **bus(es)**

   two **book(ses)** for two **books**

   three **car** for three **cars**

3. Substitution of vowel sounds resulting in phonemic errors:

   eat for **it**

   hot for **hat**

But the following phonological errors were still observed in the second observation:

1. č, š in free variation:	**shair** for **chair**
2. deletion of final consonant:	**roo** for **room**
3. deletion of medial consonants:	**is** for **it is**
4. dropping of syllables:	**big** for **bigger** **li room** for **living room**
5. ommission of glides:	**none** for **nine**
6. hypercorrection – insertion of glides:	**ees** for **is** **poot** for **put**
7. lack of t/th/d discrimination:	**tree** for **three** **dis** for **this**
8. addition of phonological segments:	class (g) room
9. lack of v/t/b discrimination:	**twelf** for **twelve**
10. lack of m/n discrimination:	**im front** – **in front**
11. y/j in free variation:	**jello** for **yellow**
12. word deletion:	How many (do) you see?

TEACHER COMMENTS REGARDING AGE GROUP ACCOMMODATION

Pacing

The teachers stated that kindergarten children are able to cover one lesson per day while fourth, fifth, and sixth graders cover lessons at a rate that would enable them to complete the 225 program lessons in one school year.

One teacher paced lesson presentation using the block assessments as pre- and posttests. She presented the assessment prior to teaching any of the lessons in a 15 lesson block. The same assessment card was used for recording scores. She marked the preassessment in one color and the postassessment in another. By referring to preassessment scores, she adjusted her teaching pace. She made a distinction between objectives dealing with the general lexicon and objectives dealing with Math/Science concepts. If the children already knew lexical items (e.g., *apple, sweater*), she didn't teach them. If they already knew conceptual Math/Science items (e.g., *line, circle*), she taught the items, but at a faster pace.

Comments Regarding Pupil Responses

One teacher suggested that it should be stated in the Teacher's Manual that partial sentences are acceptable, but that longer utterances (e.g., *What is this?* **A book** or **It's a book**) are equally acceptable.

Another teacher expected children to answer only in complete sentences. The reason for this was that other teachers in the regular curriculum expected complete sentence responses. She wanted the children to succeed when they returned to the regular classroom. Full sentence responses sometimes result in contrived intonation patterns, e.g., Teacher: What do you have? Child: I#have#a#book. (Children added juncture between words.) A more natural intonation would have resulted by having the children answer with the phrase *a book*.

Comments Regarding LCS Treatment of Language Skills

Some teachers commented that the language structures that the children are expected to produce in the LCS Program are more compatible with the age of the children than other competing English-as-a-second-language programs. In the LCS Program children are asked to produce only those sentences which are within their maturational level. The teachers also commented that the concepts taught in LCS were essential for the successful participation of children in the regular curriculum.

One of the teachers, who serves as the reading expert of one of the schools visited, stated that the LCS materials offer an effective, well-organized oral language skills program. She sees the program as a necessary prerequisite to teaching reading skills to children learning English as a second language.

Several teachers commented on the ease by which they can place pupils in the program and assess their progress. They mentioned that other language programs required too much time to administer and special skills which most teachers do not possess.

COMMENTS MADE BY SCHOOL OFFICIALS

Data Collection

One curriculum coordinator stated that it was very difficult to collect data from the teachers. She described the situation as follows:

1. If materials are purchased by the district, the teachers don't feel obligated to collect data.
2. If materials are made available at no cost, then the principals cannot require teachers to use the materials, as their use is the teacher's option – and teachers do not like to use optional materials if they have to collect data.

Several principals commented that the explicit nature of LCS made it possible for inexperienced English-as-a-second-language teachers to teach successfully.

General Comments

One district coordinator stated that if Mexican-American teachers had been aware that the materials had been prepared by a Mexican-American, these would have been used in more schools this year. Mexican-Americans are on many State Textbook Adoption Committees and often select materials written by Mexican-Americans.

One principal commented that LCS was an important program, but additional programs designed for Mexican-American children were needed. She feels that once children have acquired the necessary vocabulary and language structures to enter the mainstream curriculum, they still need additional learning experiences to help them compete successfully with monolingual English speaking children. She feels that such programs should be designed to be an integral part of the mainstream curriculum.

INFERENCES AND IMPLICATIONS

Information to be added to the Teacher's Manual

1. The LCS materials may be used by older elementary school children as well as kindergarten children.
2. Older children are able to cover more than one lesson per day. A teacher should proceed through the program as fast as the situation permits.
3. More attention should be directed to phonology as the children progress through the program. Teachers should be aware of those segments of words which constitute demonstrable interference problems for Spanish speaking children; the problems should be described by lesson in the Teacher's Manual. The phonological description, like all other linguistic descriptions, should be written in nontechnical prose, e.g., *thank* not *sank* or *dank*. Explicit correction procedures should be presented for teachers and for tutors.
4. Teachers should be advised that the additional activities they incorporate into a lesson should be directly related to lesson outcomes and be of such duration that a lesson can be presented within the suggested time.

5. The suggested time needed for the presentation of the lesson components should be stated:

Review	2-5 minutes
Teacher-Learner	8 minutes
Learner-Learner	8 minutes
Optional Activity	5 minutes

The pacing of the lessons should be adjusted to the needs of the class. Older children should be able to cover the material in a shorter time.

6. It should be stated clearly in the Teacher's Manual that the Practice Exercises are to be used to reinforce previously learned material. The suggested time for the presentation, 20 minutes, should be stated in the Manual.
7. If student tutors are used, they should be in the fifth grade or higher.
8. Full sentence responses as well as short responses which are used in natural communication should be acceptable, e.g., *Are you hungry?* **Yes./Yes, I'm hungry.**
9. Additional formulation is needed regarding the need for and use of preassessment procedures.
10. Placement test and assessments should take little time to administer and require skills that most teachers possess.

Lesson Format

1. The supervisors, principals, and teachers liked the script format. Several principals stated that the explicit nature of the materials made it possible to hire inexperienced teachers to teach Spanish speaking children successfully.
2. The teachers like the simplicity of the Concept Cards and Concept Posters.

Tutorial

1. The decision as to whether the teacher, an aide, or a tutor is to present the follow-up materials should be made by the teacher.

2. The Practice Exercises should be presented in the sequence in which they were written. For additional practice, the questions may be presented out of sequence.
3. The differences in the presentation of the game suggest that the teachers devise their own games following LCS suggestions.
4. Tutors should be trained to correct phonological errors.

Tests

Children who were placed in the program because of low phonological rating, but who had scored high on syntax, should be retested periodically. They may be ready to join the regular classes before they complete the 225 lessons. The teachers were pleased to be able to administer and score the Placement Test in a matter of 5-8 minutes. Competing programs require linguistic expertise from the part of the teacher and take an hour per child to administer and score.

LCS OBSERVATION FORM, 1971-72

TEACHER _____ SCHOOL _____ OBSERVER _____

Date _____ Lesson # _____ Total Time Spent Observing Class _____ Tutorial _____

No. Children in Class Who Are In K___ 1___ 2___ 3___ 4___ 5___ 6___ 7___ 8___

Was the Lesson Completed During Observation? Yes___ No___. Tutorial Yes___ No___.

I. **Describe procedures teacher uses in presenting LCS**

Review _____

Teacher/Learner _____

Learner/Learner _____

Optional Activity _____

Describe how tutorial session is presented. _____

_____

II. **Teacher Lesson**

1. Describe how the teacher accommodates the various age groups in the class. (Vocabulary used by teacher, different or additional flashcards, adaptation of activities, etc.)

_____

_____

_____

2. Describe how children respond to the instruction.

_____

_____

_____

Tutorial Presentation

1. Describe how the tutor accommodates the various age groups.

_____

_____

_____

2. Describe how pupils of various ages respond to tutorial materials. (Were the responses noticeably different between age groups? Interest, correct/incorrect responses, etc.)

_____

_____

_____

PLEASE MAKE ANY ADDITIONAL COMMENTS ON THE BACK.

III. **Teacher comment**: What strategies or adaptations does the teacher incorporate into the program to accommodate the various age groups?

Complete roster before classroom visitation

	Name of Student	Entry Test Score	Grade Level	Note the Quality of Responses
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

DEVELOPMENT OF THE LCS END-OF-PROGRAM ASSESSMENT MEASURE: 1972

William Doherty, Ralph A. Hanson, and Jennifer Acosta

Abstract

The Quality Assurance System for the LCS program includes an end-of-program assessment. The design and construction of this measure is described.

The Quality Assurance (QA) system which accompanies the LCS program includes the necessary procedures and materials to enable users to obtain basic information about program performance throughout program use. As such, QA procedures must be concerned with performance assessment on the individual program units as well as after completion of instruction. This report describes the development of an end-of-program assessment measure for LCS designed to assess the performance of pupils after program use.

DEVELOPMENT CONSIDERATIONS

There were several basic characteristics of the LCS program and program use that had to be considered in developing the assessment. One of these is the designation of the exact behaviors which are specified in the program objective and taught by the instructional materials and procedures.

Following a thorough review of the LCS technical specifications and LCS program materials, it was determined that three types of proficiency addressed by the program are useful quality assurance indicators: concept identification, concept statement, and language production.

Concept identification is the recognition of an English concept by the pupil. Concept statement requires that the pupil not only recognize but also be able to produce the appropriate English words to communicate an understanding of a concept. This

verbal statement, however, does not have to constitute a complete syntactical structure. Language production requires the pupil to produce complete syntactical structures such as phrases, expressions and sentences in English.

As can be seen from the descriptions of these three indicators they are related in a hierarchical manner as well as ordered in terms of complexity. This characteristic is embodied in the design of the assessment.

A second consideration in developing the assessment was the design of item forms for each of the three indicators. Defining the item forms for concept identification and concept statement was straightforward. For concept identification, items which present a visual representation of several program concepts and a request to identify one of them by pointing to it were adopted, since similar procedures were used throughout LCS in both instructional and enroute assessment requirements. Likewise, the item form for concept statement followed directly from existing LCS materials and procedures: requiring the pupils to give the name of a concept after being shown a pictorial representation.

The language production indicator, however, presented some unique problems. One difficulty was involved in eliciting a complete verbal syntactical response from the pupil which was clearly restricted in terms of form and substance. The specificity of form and substance is required so that guidelines can be derived for the assessment administrator to determine whether the response is correct or incorrect. After consideration of several different item formats, an item form was derived which appeared to reflect the indicator appropriately and fulfilled all the requirements for feasibility of school use. This item form is a modified version of elicitation procedures developed by SWRL. It involves the manipulation of Ellie, a hand puppet, by the assessment administrator. Situations are structured in which the administrator and Ellie are conversing and the pupil is asked to respond to requests. The pupils' responses are constrained by the context in which they are requested.

Another consideration related to the definition of the item formats is the sampling of substance for each of the indicators.

For the concept identification and statement indicators, the substance refers to the various concepts presented in the 15 LCS units. The concepts are organized in the instructional program both by unit and by communication category. An adequate sampling procedure was required that would consider both aspects of program structure. Since the communication categories span the 15 units, a sampling plan which included one concept identification and statement item from each of the 15 units of the LCS program was adopted. In addition to this coverage of substance by unit, a special effort was made to represent all of the 23 communication categories within the 30 items (see Appendix for the population of Program words and concepts).

Providing an adequate sample of substance for the language production objective was less straightforward. Language production items can vary in difficulty along a number of dimensions within the program. The dimensions which appear to be consistent with the instructional emphasis of the LCS program are: 1) type of sentence (varying from declarative to question), and 2) degree of original production (varying from imitative to original).

By concentrating on these two dimensions, 10 items were constructed that varied in the complexity of response required of the examinee. The initial items required simply an echoic response of a simple sentence structure while the succeeding items became more complex in terms of original production and response structure.

A multicategory scoring procedure was adopted for these items. The first category includes all responses which are identical to the correct responses listed for the item. The second category contains all responses which the administration judges to communicate the essential information required by the item but that were not listed for the item. The last two categories consist of all incorrect responses and non-responses, respectively. This system allows the maximal amount of information to be learned regarding the language characteristics of the pupils in the LCS program.

This scoring procedure, the final configuration of the assessment items into a booklet, and the other accompanying materials were all designed to consider another desired attribute of the assessment: that it be designed to be administered, scored and interpreted by classroom teachers. A special effort was made in assessment development to ensure that the teacher received materials and procedures which did not require special skills.

ASSESSMENT MATERIALS

Based on the considerations as stated, the LCS assessment was prepared. It includes the following components: Assessment Booklet, Pupil Response Sheet, and Teacher's Guide.

- Assessment Booklet

  The 40 LCS items were assembled into an assessment booklet, which would be convenient to use in an individually administered context. The first 15 items constituted the concept identification section. Each item of this section had a stimulus picture printed on a page which the administrator was to place facing the pupil. The appropriate item stem was printed on the page closest to the administrator. These items required the pupil to point to the correct concept object in the picture. The concept statement section also had stimulus pictures for each item. For these items, the pupil was required to produce a short verbal response which contained an appropriate English word or phrase. This word or phrase was printed in the booklet for the teacher's convenience. In the language production section, each item provided information regarding the *context*, i.e., the action and props to be used by the administrator, the *request*, i.e., the item stem, the *response*, i.e., the correct responses, and the *reinforcement*, i.e., a short sentence used to provide an easy transition to the item. Use of the instrument indicated that administration should take between 6-10 minutes per pupil and was thus manageable in the small LCS tryout classes.

- Pupil Response Sheet

  The LCS Pupil Response Sheet is a non-scannable form designed to accompany the LCS assessment. The sheet provides space for the test administrator to record the item responses for 27 pupils.

- Teacher's Guide

  The guide is a complete list of instructions and procedures needed to administer and score the LCS assessment. Particular emphasis in this guide was given to the administration and scoring of the language production items.

SUMMARY

A 40 item individually administered assessment was developed as part of the QA system to accompany the LCS program. This assessment was structured to provide information on three indicators relevant to the outcomes of the instructional program: concept identification, concept statement, and language production. For the first two indicators, substance was sampled on the basis of unit of instruction and communication category. The language production section sampled substance in terms of increasing complexity of response structure and degree of original production.

APPENDIX

Program Words and Concepts, by Communication Category*

1. **ANIMALS**

cat (6)
dog (6)
horse (7)
cats (17)
dogs (17)
horses (17)
bird (80)
fish (122)
chicken (132)
cow (132)
animal (133)
tiger (133)
duck (174)

2. **CLASSROOM**

book (2)
crayon (2)
chair (3)
table (3)
pencil (4)
piece of paper (5)
boy (8)
girl (8)
flag (21)
children (29)
wastebasket (47)
classroom (52)
teacher (52)
standing (53)
painting (53)
coloring (55)
writing (55)
balloon (56)
mat (57)
hold (71)
stand (72)
school (78)
absent (79)
row (79)
play (80)
saw (99)
desk (103)

2. **CLASSROOM (Cont'd)**

umbrella (105)
run (107)
carry (109)
walk (110)
rest (112)
learning (120)
gave (123)
playground (124)
park (145)
library (164)
pen (197)
show (198)
sat (202)
sit (202)
basket (206)
guitar (208)
piano (208)
dance (209)
music (209)
sing (209)
drum (210)
instruments (210)
picture (210)
people (212)
friend (213)

3. **CLOTHING**

blouse (12)
shirt (12)
sweater (12)
hat (14)
coat (15)
button (26)
shoes (31)
socks (31)
skirt (91)
raincoat (108)
jacket (109)
dress (135)
clothes (148)
bathing suit (150)

*The numbers in parentheses refer to lesson numbers.

4. **COLLECTION OF OBJECTS**

set (29)
pair (31)
ones (49)
pieces (50)
things (167)
together (170)
all (171)

5. **COLORS**

red (11)
yellow (13)
blue (16)
green (19)
black (21)
white (21)
brown (49)
orange (49)
pink (66)
gray (71)
purple (71)

6. **COMMUNICATION MEDIA**

newspaper (92)
radio (114)
T.V. (114)
magazine (115)
letter (117)
talk (168)
telephone (168)

7. **COMMUNITY SERVICES**

store (100)
mailman (117)
doctor (118)
policeman (118)
fireman (119)
teach (120)
teaching (120)
farm (132)
zoo (133)
bought (141)
buy (141)

7. **COMMUNITY SERVICES (Cont'd)**

dime (158)
money (158)
nickel (158)
penny (158)
building (219)

8. **COMPARISON**

not the same (22)
same (22)
fewer (34)
more (34)
big/little (40)
heavy (56)
light (56)
heavier (57)
lighter (57)
bigger (58)
biggest (58)
heaviest (58)
lightest (58)
equal (61)
unequal (61)
most (62)
thin (64)
thinner (64)
thinnest (64)
empty (65)
full (65)
half-full (65)
half (66)
long/short (67)
longer (67)
longest (68)
shorter (68)
shortest (68)
tall/small (135)
narrow/wide (136)
alike (137)
dirty (148)
clean (149)
wet/dry (149)
away/toward (157)
high/low (159)
very (174)

8. **COMPARISON (Cont'd)**

closed/open (180)
right/wrong (183)
top/bottom (185)
quiet/noise (187)
quick/slow (188)
least (189)
higher/lower (190)
fat (210)
young/old (212)
length/width (224)

9. **FOODS**

apple (32)
banana (32)
orange (33)
milk (43)
orange juice (43)
coffee (44)
water (44)
candy (47)
lemon (82)
bread (139)
meat (139)
tomato (139)
vegetable (139)
egg (140)
fruit (140)
cake (191)
ice cream (191)
pie (191)
grow (192)
lettuce (192)

10. **GEOGRAPHY**

hill (121)
mountain (121)
valley (121)
ocean (122)
river (122)
city (219)
country (219)

11. **GEOMETRIC FIGURES**

curved (24)
line (24)
straight (24)
circle (25)
square (25)
triangle (26)
rectangle (27)

12. **HOME**

house (9)
cup (23)
family (30)
mama (30)
papa (30)
bottle (40)
box (40)
glass (41)
bowl (42)
stove (45)
livingroom (69)
couch (72)
lamp (73)
rug (74)
window (75)
tree (80)
brother (93)
sister (93)
breakfast (94)
dinner (94)
lunch (94)
bedroom (101)
sleep (101)
comb (104)
flower (116)
grass (116)
ladder (119)
backyard (124)
garden (124)
drink (138)
glass (143)
wood (143)
doghouse (144)

12. **HOME (Cont'd)**

fence (146)
wash (148)
soap (151)
towel (151)
bathroom (152)
garage (152)
kitchen (152)
cook (153)
home (161)
visit (161)
clean (verb) (172)
man (176)
woman (176)
door (180)
shelf (185)
lady (199)
drank (202)
plate (205)

13. **MOVEMENT**

jumping (55)
catch (142)
hit (142)
throw (142)
pull (147)
push (147)
break (153)
broke (153)
spill (153)
kick (159)
back & forth (160)
swing (160)
take (169)
took (169)
move (196)
hop (207)
caught (218)
thrown (218)

14. **NUMBERS & NUMERALS**

number (33)
one (36)

14. **NUMBERS & NUMERALS (Cont'd)**

two (36)
three (37)
1 (38)
2 (38)
3 (38)
four (39)
4 (39)
five (50)
5 (50)
six (51)
6 (51)
seven (59)
7 (59)
eight (60)
8 (60)
add (62)
minus (63)
plus (63)
nine (69)
9 (69)
ten (70)
10 (70)
eleven (76)
11 (76)
twelve (77)
12 (77)

15. **PARTS OF BODY**

head (35)
mouth (35)
nose (35)
ear (36)
eyes (36)
finger (37)
hand (74)
hair (104)
arms (156)
body (156)
face (156)
legs (156)
feet (157)
foot (157)

16. **RECREATION**

skates (31)
swim (137)
baseball (142)
toys (147)
beach (150)
sand (150)
movies (163)
swimming pool (181)
circus (196)
travel (211)
vacation (211)
football (220)
sports (220)
game (221)
lose (221)
team (221)
win (221)
lost (222)
race (222)
won (222)
swam (224)

17. **SAFETY**

stop/go (20)
traffic light (20)
sidewalk (118)
fire (119)
hurt (159)
help (166)
freeway (211)
wait (223)
hurts (225)

18. **SENSES**

feel (81)
happy (81)
sad (81)
sour (82)
sweet (82)
hungry (111)

18. **SENSES (Cont'd)**

tired (112)
hear (113)
listen (114)
smell (116)
want (194)
fine (225)
sick (225)

19. **SOCIAL EVENTS**

candles (89)
party (90)

20. **SPACE RELATIONSHIPS**

in front (52)
in back (53)
far (54)
near (54)
behind (72)
above (73)
beside (73)
below (74)
between (75)
under (75)
first (78)
last (78)
second (79)
third (84)
fourth (85)
after (86)
down (107)
up (107)
left (110)
right (110)
by (144)
inside (144)
next to (144)
across (146)
around (146)
before (147)
outside (207)

21. **TIME**

clock (76)
time (77)
calendar (83)
week (83)
Monday (84)
Sunday (84)
Tuesday (85)
Wednesday (85)
Thursday (86)
Friday (87)
night (87)
morning (88)
Saturday (88)
today (89)
tomorrow (95)
dark (101)
for (duration of time) (168)
until (168)
early (178)
late (178)

22. **TRANSPORTATION**

car (10)
bike (18)
truck (18)
bus (19)
airplane (134)
train (134)
road (136)
boat (137)
ride (165)
drive (204)
tractor (204)
rode (223)

23. **WEATHER**

cold (102)
hot (102)
warm (102)
windy (104)
cloudy (106)
rain (106)
fall (154)
spring (154)
summer (154)
season (155)
snow (155)
winter (155)

DEVELOPMENT OF THE LCS PLACEMENT PROCEDURES

Jerry Bailey and Huberto Molina

Abstract

The program placement procedures for LCS include an English language production proficiency assessment protocol for use by the teacher in making program entry decisions. This paper describes the development of the Placement Aid used during the 1972-1973 LCS tryout and specifies the revisions made on the basis of tryout results.

The 1972-1973 tryout of the English Language and Concepts Program for Spanish-Speaking Children (LCS) included procedures designed to assist the classroom teacher in the program placement of pupils. As part of the procedures, a Placement Aid was designed to elicit oral English responses containing particular syntactic constructions. The particular language constructions were selected on the basis of their instructional importance and because Spanish-speaking children who are learning to speak standard English evidence varying degrees of approximation to standard English in producing them. The item form used elicited responses containing a verb phrase embedded in a relative cl use. Research conducted at SWRL on the use of English relative clauses by Spanish-speaking kindergarten and first grade children provided the basis for the elicitation technique used to evaluate oral English language proficiency.

PLACEMENT AID PROCEDURES

The structure of the LCS Program represents a systematic approach to the development of basic lexicon, phonology, and syntax. The two classes of behaviors addressed in the instructional program, concept identification/naming and oral language production/fluency, were the bases for Placement Aid item

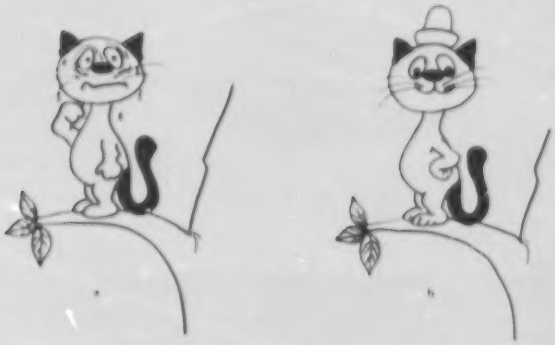
selection. Thus, the Aid was divided into two sections: production of phrases and production of complete sentences. The first section assesses conceptual understanding by requiring the pupil to produce a pictorially cued short verbal response. The second section requires pictorially and verbally cued complete sentence responses to more complex situations. The administration procedures were designed to ensure that special linguistic or psychometric skills are not required by the teacher.

The elicitation technique requires the pupil to use a complete sentence in responding to all questions. Each section contains two sample items and four elicitation protocols. To help insure a minimum of interference from the item form (or protocol), teachers present the sample items until the pupils respond correctly. The items are often repeated several times under heavy cueing conditions in order to elicit the desired oral response. Pupils who are unable to give a correct response to a sample item even under such cueing support do not continue the test. Their oral English language production proficiency suggests LCS entry at Unit 1. As previously mentioned, each protocol requires the pupil to use a complete sentence. In the first section pupils are required to start their response to all four items with the phrase "the cat that." This portion of the response is heavily cued. In the second section all items start with the phrase "on the cat that." Unlike the sample items, there is no single correct answer for any of the test items. Three answer categories, valued 1, 3, and 5, are provided. An answer in the category valued "1" is considered the most complete answer possible. The format of the aid is a 5½ x 8½ inch booklet that the teacher places in front of the pupil. The pictorial stimuli face the pupil and the item protocol and answer categories face the teacher. Figures 1 and 2 illustrate the item forms for sections 1 and 2 respectively. To assist the teacher in selecting the most appropriate answer categories for pupil responses, the following standard "keys" are provided for her use.

- Words in parentheses ( ) are optional; that is, the pupil may or may not say them.

Figure 1

Item Number 1 from Section I of the LCS Placement Aid — 1972



Item 1

THESE CATS ARE STANDING ON A BRANCH VERY HIGH UP IN A TREE.

(Point to a.)

THIS CAT IS GOING TO FALL!

(Point to b.)

THIS CAT IS NOT GOING TO FALL.

(Turn the page.)

WHICH CAT HAS A HAT – THE CAT THAT IS GOING TO FALL OR THE CAT THAT IS NOT GOING TO FALL? REMEMBER THE ANSWER MUST START WITH "THE CAT THAT."

ITEM 1 ANSWER CATEGORIES

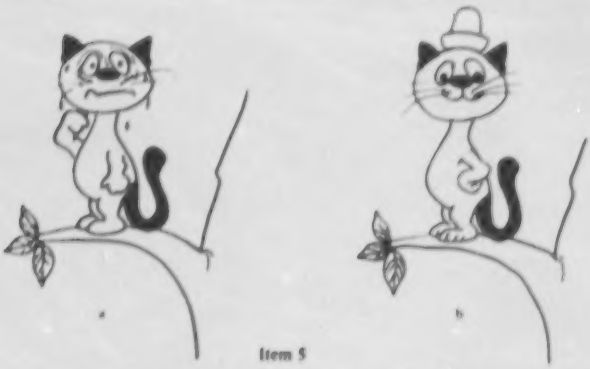
(1) THE CAT THAT IS NOT { GOING TO FALL / GONNA FALL / FALLING }

(3) THE CAT THAT *(where)* { HE / SHE / IT / HIM / HER } (is) { NOT / NO } { GOING TO FALL / GONNA FALL / FALLING }

(5) ANY OTHER ANSWER OR NO ANSWER

Figure 2

Item Number 5 from Section 2 of the LCS Placement Aid – 1972



Item 5

THESE CATS ARE STANDING ON A BRANCH VERY HIGH UP IN A TREE.

(Point to a.)

THIS CAT IS GOING TO FALL.

(Point to b.)

THIS CAT IS NOT GOING TO FALL.

(Turn the page.)

WHERE IS THE HAT? REMEMBER TO START WITH "ON THE CAT THAT."

ITEM 5 ANSWER CATEGORIES

(1) ON THE CAT THAT IS NOT { GOING TO FALL. / GONNA FALL. / FALLING. }

(3) ON THE CAT THAT *(where)* { HE / SHE / IT / HIM / HER } (is) { NOT / NO } { GOING TO FALL. / GONNA FALL. / FALLING. }

(5) ANY OTHER ANSWER OR NO ANSWER.

- Words and phrases in brackets { } are equivalent; that is, the pupil may use any one of them.
- Contractions such as "don't" and "ain't" are acceptable substitutes in answers.
- Any additional information in English which the pupil gives in answering an item need not be considered in scoring.

After determining the category in which a pupil's response belongs, the teacher records the item score on the LCS Placement Test Record Sheet (see Appendix). If a pupil receives a score of "5" on 5 consecutive test items, testing is discontinued and a total score of "40" is assigned. If a pupil completes the test, the scores on the eight test protocols are summed and recorded as the pupil's total score. Thus, total scores can conceivably range from 8 to 40 with the lower scores representing the greater oral English language proficiency. Based on assessment results and the teacher's knowledge of each pupil, one of three program placement decisions is made: enter the LCS Program at the beginning (Unit 1), enter at a more advanced level (Unit 9), or move directly into the regular school reading program. Recommended program placement for pupils in the several total-score ranges is shown in Table 1. Teachers are encouraged to also use their own knowledge of the pupils in making the actual placement decisions.

Table 1

LCS Placement Recommendations by Placement Aid Score Ranges

Total Score Range	Recommended Placement
Less than 25	Regular Reading Program in School District
25 to 32	LCS – Unit 9
33 to greater	LCS – Unit 1

TRYOUT RESULTS

The Placement Aid was tried out in the context of the 1972-1973 test of the LCS Quality Assurance System.* The purpose of using the Placement Aid was not to diagnose or to indicate a level of language achievement. Rather, it was to simply and accurately determine at what point a pupil should enter LCS. Three concerns were addressed in evaluating the use of the Aid: 1) Were teachers able and willing to invest the time required to individually administer the Aid? 2) Did actual program placement by the teacher reflect the results of the Aid? and 3) What could be done to improve the efficiency of the Aid?

Because of the relative complexity of the assessment procedures, the frequency of teacher errors in administering the aid was considered an important issue to examine. Table 2 shows the total number and percentage of specific identifiable errors made. Approximately one-half of the tests were administered properly. The most frequent error in adminstration (about one out of every three pupils tested) was continuation of testing after a pupil was unable to respond correctly to a sample item (error type 2). The placement procedures specify that following an incorrect response to a sample item, testing should be discontinued and the pupil given a score of "40" and placed at Unit 1 of LCS.

Error types 2, 4, and 5 all involve inappropriate continued testing. A total of 1613 pupils were involved in these error types. Table 3 shows actual program placement that resulted from continuing administration to completion. Approximately one-third of the pupils who would have been placed at Unit 1 of LCS, had testing procedures been followed, were placed at LCS Unit 9 or in the regular school reading instruction. While it is not possible to describe teacher motives for continuing the testing in violation of the procedures, it is strongly suggested that the

*An account of its use is reported later in this collection under LCS Quality Assurance Data: 1972-73.

Table 2

Type and Frequency of Errors Made in Administering the Placement

	Number	Percent
Followed Procedures Correctly	1849	49
Did not follow Procedures Correctly (All errors combined)	1962	51
Error Types		
1. Failed to administer Placement Aid items when suggested	289	8
2. Continued testing after pupil failed to respond correctly to a sample item	1218	32
3. Omitted responses to test items	60	2
4. Five consecutive items were marked "5" but testing was continued	268	7
5. Five items were marked "5" but the pupil was not assigned a total score of 40	127	3

Table 3

Program Placement of Pupils Tested Incorrectly (i.e., errors 2, 4, and 5)

	Program Assignment				
	No Data	LCS 1	LCS 9	Reading	Other
Number	80	1098	349	75	11
Percent	5	68	22	5	1

procedures for using the sample items be modified or that the rules for discontinuing testing be relaxed.

Examination of the completed protocols indicated that the teachers had no difficulty with the linguistic procedures specified for evaluating pupil responses and computing item scores. Out of the 1,849 completed protocols examined, only 68 indicated a discrepancy. While teachers were adequately able to handle the testing requirements, they voiced concern about the complexity and amount of teacher time involved. This, too, suggested revision in the procedures.

As shown in Table 4, teachers' actual program placement of pupils was congruent with recommendations based on the Aid. It appears that only the exceptional cases were placed in categories not recommended.

Table 4

Program Assignment vs. Computed Score for Pupils Who Spoke English and Were Tested Correctly

Score Interval	Program Assignment				
	No Data	LCS 1	LCS 9	Reading	Other
0-24	44	3	27	443	96
26-32	1	5	187	4	1
33-40	6	132	2	1	3

An item analysis was completed based on the responses of pupils who spoke at least some English and were correctly administered the items. Table 5 shows the number of pupils responding to each item and their responses arrayed by response category.

A total of 109 pupils were not able to respond correctly to the sample items and were assigned a total score of "40," with further testing discontinued. Thirty-five pupils received a "5" on

Table 5

Item Analysis of Placement Test Based On
Pupils Who Spoke English and Were Tested Correctly

		Response Category									
		Sample Items				Test Items					
		1		2		3		4		5	
Item	N	N	%	N	%	N	%	N	%	N	%
A	955	896	(94%)	59	(6%)						
B	896	885	(99%)	11	(1%)						
1	885					614	(69%)	126	(14%)	145	(16%)
2	885					625	(71%)	128	(14%)	132	(15%)
3	885					641	(72%)	125	(14%)	119	(13%)
4	885					405	(46%)	132	(15%)	348	(39%)
C	885	850	(96%)	35	(4%)						
D	850	846	(100%)	4	(0%)						
5	846					520	(61%)	142	(17%)	184	(22%)
6	840					478	(57%)	167	(20%)	195	(23%)
7	828					529	(64%)	136	(16%)	163	(20%)
8	824					343	(42%)	148	(18%)	333	(40%)

five consecutive items and were also assigned a total score of "40." As anticipated, items 5, 6, and 7 proved to be somewhat more difficult than items 1, 2, and 3, and items 4 and 8 were more difficult than the other 6 items. This, too, was consistent with expectations. In items 4 and 8 the head noun of the phrase (cat) is modified by a relative clause with "cat" as the implicit direct object. In all of the other items the implicit noun phrase of the relative clause functions as the subject. In items 1 to 4 the answer is a subject while in items 5 to 8 the answer is the object of a preposition. There were no surprises in the analysis; the items performed as anticipated. The only problem with the Placement Aid appears to relate to procedural errors and inconvenient teacher procedures. Where teachers followed the correct procedures, item response data are congruent with the

level of grammatical difficulty and the total scores are congruent with both program assignment and English ability. However, the complexity and excessive time required led to a higher frequency of variant and improper administration than can be tolerated.

REVISIONS

The revised Placement Aid made a clearer distinction between understanding spoken language and the actual production of language. While the test protocols were greatly simplified, an element of sophistication was introduced in the refinement of the elicitation technique. The two major sections were retained: concept identification/naming and language production/fluency. Eliminated were the rather cumbersome administration procedures and answer category evaluations. In Section 1 of the revision, each of 12 test items simply asked the pupils to listen to a pictorially supported question and to produce the appropriate words or phrases. The responses elicited confirmed the pupils' understanding of the concepts as well as a facility to deal with a variety of interrogative structures. The linguistic complexity was systematically sampled by varying the types of questions used. They ranged from "What is this?" (picture of a clock), to "Is a balloon lighter or heavier than a stove?" (picture of a balloon and a stove). Figure 3 illustrates the item type used in Section 1.

Items in Section 2 were much more complex and required the pupils to produce complete sentences in English. The difficulty level of sentence production was a function of the language structures sampled. The questions ranged from repetition of a sentence embedded in a request to more complex responses calling for permutation and morphological processes. Each of the six items in Section 2 involved the use of Ellie, a hand puppet, manipulated by the administrator. Situations were structured to involve the administrator and Ellie in conversation, with the pupil asked to respond to specified requests. For example, the response to Item 13, shown below, is embedded in the request:

A. CONTEXT: Ellie, a puppet, has a pencil.

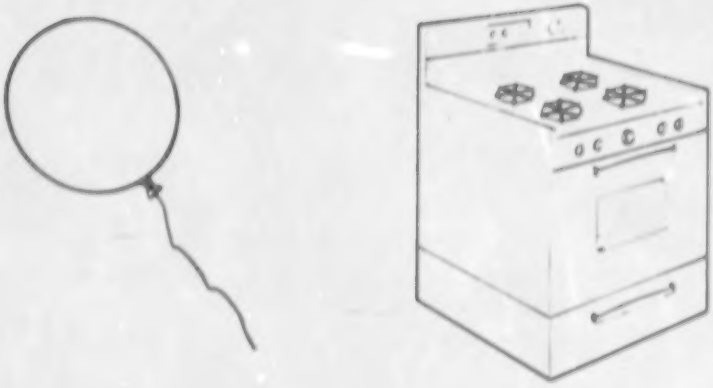
B.	REQUEST:	Ellie thinks the pencil is short. Tell Ellie IT IS LONG.
C.	RESPONSE:	{ IT IS / IT'S / THE PENCIL IS } LONG
D.	REINFORCEMENT:	Thank you.

Other item responses call for permutation and morphological processes. An example is shown below:

A.	CONTEXT:	Ellie is waving her hand.
B.	REQUEST:	Ask ELLIE WHAT SHE IS DOING.
C.	RESPONSE:	WHAT ARE YOU DOING?
D.	REINFORCEMENT:	Ellie answers I AM WAVING MY HAND.

Figure 3

Item Number 8 from Section 1 of the Revised LCS Placement Aid



8. Is a balloon lighter or heavier than a stove? Answer: Lighter.

The general administrative procedures remained the same. However, the item response evaluation procedure was simplified. For example, the first 12 items require that the pupil produce a short verbal response about the stimulus picture (see Figure 3). For each item, the administrator read the instructions that are in bold type. The word or words that must be included in a correct response are printed after "answer" in the booklet. In each case, this word is considered the minimum correct response. Although the pupil's response is not limited to the word, the response must include the word in order to be counted correct.

Assuming that the pupils complete the first 12 items, items 13-18 of Section 2 are administered. In addition to the Placement Aid booklet, the only things needed by the administrator are Ellie the puppet, a yellow pencil, and a book. The administrator places Ellie on the hand which is not used to record pupil responses and follows the following procedures:

1. Open the assessment booklet to Practice Item B. Introduce the section to the pupil by saying: "Ellie is being very stubborn today and will not talk to me. Will you please talk to Ellie for me?"
2. Look at the CONTEXT entry of Practice Item B. For each of the other 6 items, the CONTEXT explains which props are to be used and what action is to take place. In Practice Item B, Ellie has a pencil and she is to be looking at you.
3. The REQUEST section is read aloud to the pupil. The pupil's task in each case is to produce a complete sentence. In the practice item, the pupil must tell Ellie that the object is a pencil.
4. The RESPONSE portion contains the responses accepted as correct and most likely to occur. If the pupil responds with one of these, circle a "+". If an answer was given which is not listed, but conveys the proper meaning and is grammatically correct, also circle the "+".
5. The REINFORCEMENT section of each item contains Ellie's response to the pupil and is used to maintain the dialogue. It should be read after the pupil responds to the item.

If the pupil fails to answer correctly four items in succession the test is terminated. The total score is simply the sum of the number of items, excluding practice forms, for which a "+" has been circled. Again, the total score is used along with other information about the pupil in making the program placement decision. Table 6 provides the suggested placement category for pupils in each of the score ranges.

Table 6

Pupil Placement in LCS Based on
Placement Test Results

Total Score Range	Suggested Placement
Less than 10 or "NA"	LCS Unit 1 or other
10-15	LCS Unit 9
16-18	School's Regular Reading Program

The revisions made in the Placement have contributed greatly to increased teacher attention to proper program placement for each pupil. A byproduct of its use relates to teacher reports that the Placement Aid has "saved" many shy or otherwise non-vocal pupils from spending a year in unnecessary instruction. The elicitation technique used in the Aid, as well as in LCS instruction itself, serves to promote pupil verbal behavior that is more commensurate with the pupil's English language proficiency.

APPENDIX

LCS PLACEMENT TEST RECORD SHEET

DISTRICT _____ SCHOOL _____ TEACHER _____

DATE _____ CLASS A.M. ___ P.M. ___

PUPIL NAME	AGE	SEX	GRADE	ENGLISH ABILITY	PLACEMENT TEST												TOTAL SCORE	PROGRAM ASSIGNMENT
					A	B	1	2	3	4	C	D	5	6	7	8		
1		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
2		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
3		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
4		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
5		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
6 ——		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
7		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
8		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
9		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
10		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
11		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
12		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
13		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
14		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER
15		M F	K 1 2 3	1 2 3 4	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5	• –	• –	1 3 5	1 3 5	1 3 5	1 3 5		LCS 1 LCS 9 READING OTHER

FOLLOW-UP OF CHILDREN WHO PARTICIPATED IN THE 1971-72 LCS TRYOUT: 1973

Huberto Molina

Abstract

A follow-up study was conducted to determine the degree of success in subsequent regular instruction by children receiving instruction with LCS. Teachers at the end of the follow-up year administered an End-of-Year Test, rated children in nine language skill areas, and provided absentee records.

Results suggest that after a one-year interval LCS instruction provides a basis for subsequent pupil success with regular classroom instruction conducted within the standard English language system.

INTRODUCTION

The 1971-72 tryout (Molina, 1973) exercised, under standard school conditions, the materials, procedures, and accompanying teacher training system of the SWRL English Language and Concepts Program for Spanish-Speaking Children. Eight school districts, 33 schools, 43 classes, and 883 Spanish-speaking children were involved. The inquiry reported here is a follow-up of that study. At the end of the 1972-1973 school year, follow-up data were collected from 6 school districts involving 24 schools. The data included information on 138 first and second grade children who had finished the Program during the 1971-1972 tryout. Pupil test performance and pupil attendance records were obtained and used in the analysis reported in this paper.

PROCEDURES

Six of the eight school districts participating in the 1972-1973

study agreed to participate in the follow-up inquiry. The 24 schools included in the analysis represent various California demographic situations: metropolitan U.S./Mexico border area, schools in a large Spanish-speaking community, schools in the inner city, schools in pocket areas surrounded by English speaking communities, and county schools serving migrant families.

Assessment Measures

Individual Entry Test scores and End-of-Program Test scores were used from the data collected during the 1971-72 tryout. Three additional data sources were used: 1973 End-of-Year Test, Descriptive Ratings completed by teachers, and Attendance Records.

1973 End-of-Year Test. The measure includes 40 items: 15 items require psychomotor responses to imperatives in standard English, 15 require oral responses in which one-word responses are acceptable, and 10 require full sentence responses. The substance of the test items is referenced to general English rather than to the LCS program.

Descriptive Ratings. Teachers were asked to rate pupils in terms of performance in English with classroom peers in the regular classroom. Descriptive ratings were specifically referenced to the following skill and achievement areas: Reading, Oral Language Development, Writing, Mathematics/Science, and Social Studies. The teachers rated student performance in terms of four ordered categories: (1) Cannot do task, (2) Experiences difficulty, (3) Performs adequately, and (4) Excellent performance.

Attendance Records. The number of days absent for individual children for the 1972-73 school year was obtained from school records.

ANALYSES

In the participating schools, 214 children had received

instruction in LCS in 1971-72. Seventy-six of these children had transferred to other schools by the end of the 1972-73 school year; thus they were not included in the follow-up data. For all practical purposes, pupils about whom data were received were no different from transferred pupils in terms of entry test scores: the mean score for pupils about whom data were received was 24.72; for transferred pupils it was 22.70. Teacher ratings were received from 69 teachers for 108 pupils; absentee records were received for 110 pupils. The remaining 17 teachers who did not provide information stated that they were too busy at the time to complete the forms. The mean entry test score of those children for whom ratings were not received was 27.76; the mean score was 27.03 for those children for whom absentee records were not received. This indicates that "non-response" pupils did not differ in entering language proficiency from the group of 138 children for whom complete data were available for analysis and thus suggests that selective "attrition" did not bias the analysis.

Frequency Distributions of Test Performance and Teacher Ratings

Table 1 shows the frequency distribution of pupils on the

Table 1

Distribution of 1973 End-of-Year Test Scores

Score Range	Children	
	N	%
36-40	65	47
31-35	46	33
26-30	22	16
21-25	4	3
15-20	1	1
Total	138	100

general English proficiency test. The high levels of performance indicate that after a lapse of one year, an LCS graduate tended to retain or improve upon the language proficiency acquired in the LCS instruction.

Table 2 shows the frequency distributions of teachers' estimates of the LCS graduates' proficiency at the end of their next school year in regular classes. The ratings again indicate a generally high level of performance, suggesting that the school success experienced in LCS is generalizing to other areas of instruction.

Interrelations Among Measures

Table 3 includes the correlation coefficients reflecting the relationships of the nine regular classroom skill area ratings based on 1973 pupil performance, the four LCS-related variables based on 1972 performance, and the LCS End-of-Year Test administered in 1973. Most compelling are the r-values for the Entry Test administered prior to LCS instruction in 1971 and all other variables; none is statistically significant. Both success in LCS and subsequent success in regular classroom instruction appear independent of pre-instruction English language proficiency.

The two End-of-Year Tests are each positively and significantly correlated with all nine skill area proficiency ratings, with r-values ranging from .41 with Oral Language Development to .19 with Writing Skills.

That continuity of instructional contact by the pupil is more critical than his entering skills level appears to be supported by the correlational data. Both 1972 and 1973 absence rates tend to be regularly associated with depressed performance ratings by the teacher in 1973. That absence rate is not significantly correlated with the test performance data and tends to be independent of the reading task cluster is of interest. Reading instruction, like LCS instruction, tends to be supported by a relatively high emphasis upon instructional materials and by a comparatively high allotment of instructional time. It may be that this

Table 2

Distribution of Teacher Ratings

Task	1 Cannot Do Task	2 Experiences Difficulty	3 Performs Adequately	4 Excellent Performance
1. Reading: Interprets written symbols as meaningful communication.	6	33	60	9
2. Reading: Reads orally with fluent standard English, pronunciation and intonation.	9	38	54	7
3. Oral Language Development: Has sufficient control of language to ask and answer questions in class.	2	28	63	15
4. Oral Language Development: Has sufficient control of language to function in the classroom.	2	20	65	21
5. Writing Skills: Competency in writing skills.	3	28	63	12
6. Math/Science: Sufficient proficiency in using Math/Science concepts, e.g., numbers, numerals, numeration, including adding and subtracting.	2	23	68	15
7. Math/Science: Identifies and names space relationships, comparisons, e.g., above, under, big/bigger/biggest.	1	24	69	14
8. Math/Science: Identifies and names set concepts and basic geometric figures, e.g., members of a set, number of a set, circle, square.	1	18	69	20
9. Social Studies: Sufficient language proficiency to deal effectively with health and safety requirements at school.	3	5	80	20

Table 3

Correlation Matrix for LCS Variables

Variables	Task Ratings 1	2	3	4	5	6	7	8	9	Entry Test '70 10	E.O.P. Test '72 11	E.O.Y. Test '73 12	Days Absent '72 13	Days Absent '73 14
1. Reading Interpretation	—	.71*	.55*	.62*	.56*	.51*	.49*	.56*	.45*	.01	.26*	.13*	-.21	-.12
2. Reading Fluency		—	.55*	.59*	.63*	.56*	.52*	.56*	.39*	.06	.18*	.19*	-.32*	-.15
3. Oral Develop. Ask/Answer			—	.80*	.45*	.54*	.52*	.53*	.63*	.04	.27*	.31*	-.35*	-.25*
4. Oral Develop. Function				—	.63*	.64*	.60*	.62*	.74*	.04	.24*	.41*	-.37*	-.13*
5. Writing Skills					—	.59*	.47*	.46*	.46*	.08	.19	.19*	-.31*	-.21*
6. Math/Science						—	.65*	.69*	.55*	-.11	.32*	.35*	-.21	-.28*
7. Math/Science Space Relationships							—	.73*	.49*	.01	.31*	.27*	-.20*	-.25*
8. Math/Science Sets and Figures								—	.62*	-.06	.28*	.26*	.14*	-.10*
9. Social Studies Health and Safety									—	-.10	.18	.25*	.15*	-.36*
10. Entry Test										—	.17	-.10	.02	.04
11. E.O.P. Test '72											—	.53*	.04	-.09
12. E.O.Y. Test '73												—	-.03	-.19
13. Days Absent '72													—	.62*
14. Days Absent '73														—
$\bar{X}$	2.66	2.55	2.84	2.97	2.76	2.89	2.89	3.01	3.08	24.72	54.55	34.24	11.59	12.52
S.D.	.71	.74	.67	.68	.71	.63	.62	.63	.58	12.05	5.26	4.12	9.42	11.66

*$P < 0.5$

combination is sufficiently robust to neutralize absence rate as a performance depressing factor for most pupils. If one analyzes classroom instruction associated with the other performance areas, it seems clear that the clinical interaction of the teacher and pupil is not supported by either a plethora of instructional materials or a favorable allotment of instructional time. This conjecturing suggests that continuity of instructional contact is necessary but not sufficient, that a critical ingredient is the availability of a systematic set of materials and procedures for the teacher's use in providing instructional continuity over time and absences.

REFERENCE

Molina, Huberto. **The SWRL English Language and Concepts Program for Spanish-Speaking Children: 1971-1972 Tryout.** Technical Report 46, SWRL Educational Research and Development, Los Alamitos, California, 1973.

TRYOUT OF THE LCS TRAINING SYSTEM: 1972-73

Barbara Lasser, Robert Elam, and Lewis Bossing

Abstract

Reactions of district trainers and teachers to the LCS training system are presented, and the revisions resulting from this feedback are discussed.

SWRL training systems include materials and procedures required to train district personnel to implement and monitor SWRL programs. Through supervisor training sessions, school district staff are prepared to train teachers and monitor program installation activities.

In connection with the 1972-73 tryout of the LCS program, SWRL staff trained 109 district trainers (49 teachers and 60 supervisors) in six training sessions. Teacher training was conducted by these individuals.

Conducting LCS Training

Responsibility for the conduct of LCS training was shared by two SWRL trainers. Major divisions of the training sequence were:

- LCS training overview
- SWRL introduction
- Trainer's Guide preview
- Conduct of teacher training
  - program overview
  - program materials
  - program procedures
  - tutor training overview
  - tutor-aide procedures
  - question-answer period
- Installation information
  - placement test materials and procedures

- quality assurance requirements
- Completion of trainee reaction forms

A Staff Trainer's Agenda (see Appendix) was prepared to guide trainers in conducting supervisor training. The Agenda and the Teacher Trainer's Guide which it complements provide a detailed outline of the conduct of LCS supervisor training.

Procedures

Reaction forms were prepared and used to collect data from trainers and teachers. The forms included structured, restricted response items and open-ended response items related to operational statements of training objectives. Responses to these items facilitated judgments regarding the effectiveness of specific training system components and procedures. In addition, data regarding the following activities were collected: a) teacher training scheduling and formats, b) resource support and program monitoring, c) instructional program sequencing and scheduling, and d) material ordering and delivery. Such data provided information regarding the effectiveness of installation system components and training operations. Sample reaction forms are included in the Appendix.

Reaction form data were collected in three phases: 1) from district trainers immediately following trainer training, 2) from teachers and trainers immediately following teacher training, and 3) from teachers and trainers after the program had been in use at least eight weeks.

RESULTS

Phase 1: Trainer Reactions

At the close of each SWRL-conducted training session, trainers were asked to complete reaction forms. Of 109 district representatives trained, 89 (81%) completed reaction forms.

Eight-one (91%) of the trainers who returned reaction forms felt prepared to train teachers to use LCS. Five trainers did not feel prepared to train and three did not respond. Trainers expressing lack of confidence suggested that training include

more opportunity to practice necessary placement and instructional skills.

When asked how training could be improved, 54 percent of the trainers expressed satisfaction with the then-current training system. Forty-six percent suggested that training procedures, materials, or sequencing be changed, or specific procedures and materials omitted. Table 1 presents trainer suggestions for training system revision.

Table 1

Trainer Suggestions for Training System Revisions

Response	Number Responding
– Too abstract – should include a great deal of concrete activity. Does not take pupil motivation into consideration at all. Too many variables in the placement test.	1
– Have us practice administering the test.	1
– Materials should be in a folder or ring-binder to keep from getting out of order. Would like to have seen a complete set of lesson cards.	1
– Time is a significant factor in training personnel on the district and school level.	1
– More time should be spent in training the teachers in the actual pacing of the lessons.	1
– Would like to have seen an actual class in session.	2
– More demonstrations.	3
– Would like to view a complete unit presentation that involved presentation of initial concept. An overview often appears simple until one actually is involved in implementation of a complete unit.	1

Table 1 (Continued)

Response	Number Responding
– Don't read to group. Less tapes and film-strips and more involvement of representatiyes.	2
– Have participants see materials before training.	2
– Longer time on first introduction.	1
– Unsure at this time.	1
– It should be better prepared with a certain amount of time for each section.	1
– Some questions on cassette had too long an interval for responses. The introduction of placement test was confusing at first – tape clarified it, however.	1
– Should schedule an all day session to really get into program more deeply.	1
– Possibly schedule two days of training – too many samples handled in short time.	1
– Tapes explained several items the instructor explained – not necessary to repeat.	3
– We were one hour late, for lack of knowledge of time change.	1
– I would prefer to see a film on the materials in use in a classroom rather than a static filmstrip.	1
– I enjoyed the tapes because of the amount of information they relayed in such a short amount of time.	1
– Schedule two breaks instead of one.	1
– The training session moves rather rapidly; could be held in two sessions with a break to review	

Table 1 (Continued)

Response	Number Responding
the first session and come back with any questions.	1
Edit materials. Voice on LCS Practice for Tutors tape is not top quality.	1
Overall list of supplies needed to fulfill training and teaching functions.	1
Some time might have been saved by limiting the personal remarks by the visitor.	1
Materials and visuals on placement test require more than pronunciation, and visual cues are not present to distinguish adequately.	1
The placement test pictures were confusing.	2
Placement or pretest should be discussed before the instructional materials are introduced.	2
More time on answers that can be accepted for placement test.	1
The recording on the placement test should be played first. Also, materials should be used by coordinators and teachers during training.	1
More time for review of placement test.	1
More time on testing procedures.	2
Edit materials more carefully to eliminate errors in presentation.	1
A verbal review of objectives and suggestions would help. Possible problems other teachers may have previously run into in test administration could be shared.	1

Table 1 (Continued)

Response	Number Responding
– I would have put materials (except placement test) on overhead transparencies rather than on printed paper – different people attend to different items on paper.	1
– Laboratory Overview filmstrip – illustrate the impact upon a child rather than the analogy of manufacturing an automobile – good otherwise. LCS Practice for Tutors filmstrip – excellent material – listing of three choices with one correct response is great but at the point where three definite steps are listed possibly another device could be used. I assumed another choice was to be made until next scene was shown.	1
– The group should be more involved in simulation exercises. Visual and audio presentations were excellent but participation seemed too passive for me to be certain I had comprehended everything.	1
– PRESENTATION COMPLETE AND WELL DONE	12
NO RESPONSE	36

While trainers made numerous suggestions for training revision, some, such as the opportunity to observe LCS instruction in the classroom, and the extension of training to a one or two-day session, are not practicable within the context of an exportable training system. The opportunity to view program materials prior to training, another suggestion, is not precluded by the design of the LCS training system. Early delivery of program materials, another suggestion, is largely a function of date of ordering by the school district.

Other participant suggestions, such as a list of materials needed for training and instruction, were characteristic of the then-current LCS training system. Other comments, such as those related to difficulty in placement test administration and to the desirability of including a 16mm film on program use, are reflected in 1973-74 LCS training system revisions.

Trainers were asked what they planned to do to prepare themselves to use the program. Fifty-nine percent indicated they would review training materials and/or procedures. An additional 17 percent indicated they would review program materials and procedures, and 24 percent did not respond.

Participants were asked to list any questions or concerns that were not answered to their satisfaction during training. Seventy-six percent of the trainers who returned reaction forms made no response. The remaining 24 percent listed various concerns about program and training materials, program procedures, and program coordination. Trainer responses appear in Table 2. Trainers expressed most concern about the content of the placement test, and about program pacing and grouping procedures.

Table 2

Questions or Concerns Not Answered During Training

Response	Number Responding
– I am wondering whether a successful program will result.	1
– I've heard about the tutor games; we did not see a demonstration.	1
– Are there supplementary games to be used with the program?	1
– Is this program sponsored by the Federal Government completely or by some manufacturing company?	1
– Concerned about pacing and securing aides.	1

Table 2 (Continued)

Response	Number Responding
– I usually wait, see how the program develops, and then I think of a million questions.	1
– Confused about (+) and (–) signs on answer sheets (Placement Test).	1
– My concern is on the matter of "accents" (Placement Test).	1
– Placement Test is testing children on many things – not just language. Would have liked tryout results that would show whether this program is better than just Language Experience Approach.	1
– Why is "the cat that" left out in some of the questions the teacher asks (Placement Test)?	1
– How long will it take to get the materials after the Placement Test scores have been processed?	1
– I don't quite understand how our bilingual program fits with this additional program.	1
– I really haven't had time to think through reaction form questions 3 and 4 and look at the materials to answer them adequately.	1
– A rubberband provided to hold materials in order after perusal may be helpful.	1
– Program seems to call for too rapid a pace for non-English-speaking children. Feel that slower pace is needed for concept retention.	1
– Would like suggestions for ideal groupings of children. Suggestions for whole class, 4-5 children, or 10-12 children.	1

Table 2 (Continued)

Response	Number Responding
– Perhaps some letters and maybe tapes – overview should be developed in Spanish for parents and members of school Advisory Council.	1
– How closely must the teachers follow the instructional procedures (how much improvisation is possible?).	1
– Enjoyed today's session.	3
– NO RESPONSE	68

Phase 2: Trainer and Teacher Responses After Teacher Training

Teachers and trainers were asked to complete reaction forms after the conduct of teacher training sessions. One hundred fifteen teachers were trained. The average number of teachers trained per LCS district was 4.6; an average of 2.8 teachers were trained during each LCS session. Twenty-one percent of trainers conducting teacher training were principals, 38 percent were LCS coordinators, 26 percent were teachers, and 14 percent were SWRL staff.

The following statements are supported by Phase 2 data.

- Most teachers began using LCS during October.
- Aides or tutors were trained in 11 of 26 districts.
- Seventy-six percent of LCS teachers administered the Placement Test.
- In preparation for conducting LCS training, all district trainers indicated they had attended a Laboratory-conducted session and most had subsequently reviewed training and program materials.
- When teachers indicated how they prepared themselves to use LCS materials, all except two said they received LCS training.

- All LCS trainers indicated that teachers had been instructed to seek program assistance from them.
- All trainers indicated that they had received training materials.

Table 3 presents trainer responses relative to their degree of confidence in training teachers. Seventy-seven percent (62 of 80) of the trainers felt their preparation was "Good" or "Excellent".

Table 3

Responses to the Question, "On the Basis of the Trainer Training Session You Attended and with Additional Time to Review and Study the Materials, Did You Feel Well Prepared to Train Teachers to Use LCS? For Each of the Following Items, Please Check the Blank That Best Reflects Your Preparedness."

	Response				
Item	Poor	Fair	Good	Excellent	Total
Familiarity with training materials	0	3	9	5	17
Familiarity with training procedures	0	3	10	4	17
Familiarity with training equipment operations	0	3	10	4	17
Understanding of quality assurance operations	2	3	6	3	14
Ability to answer program-related questions	0	4	7	4	15
Total	2	16	42	20	80

Table 4 presents teacher self-reports regarding preparedness to use LCS. Seventy-three percent of the teachers (449 of 615) indicated they felt "Good" or "Excellent" about using the program. Four percent rated their preparedness "Poor." The area of greatest difficulty involved understanding quality assurance procedures.

Table 4

Responses to the Question, "On the Basis of the Teacher Training Session You Attended and with Additional Time to Review and Study the Materials, Did You Feel Well Prepared to Use LCS in the Classroom? For Each of the Following Items, Please Check the Blank That Best Reflects Your Preparedness."

	Response				
Item	Poor	Fair	Good	Excellent	Total
Familiarity with Placement Test	4	17	51	23	95
Familiarity with program materials	5	17	53	13	88
Familiarity with instructional procedures	4	14	49	21	88
Familiarity with assessment procedures	2	23	46	13	84
Familiarity with follow-up procedures	4	23	43	14	84
Understanding of quality assurance procedures	8	25	43	14	90
Familiarity with procedures for tutor and aide training	1	19	51	15	86
Total	28	138	336	113	645

Table 5 lists suggestions for the improvement of LCS training. Suggestions relate to four categories: training procedures, training materials, program procedures, and program materials. Teachers felt training procedures could be improved by extending training time and providing more materials to examine at training. Training materials, they felt, should include a sample

Table 5

Suggestions for the Improvement of LCS Training Materials and Procedures

Response	Number Responding
Training Procedures	
• Include more in-service training	2
• One session would never be adequate	1
• Need to spend more time on training	2
• More suggestions on grouping	1
• Material kits should be supplied to all coordinators	1
• Teachers should view the training film at least twice because the reinforcement is beautiful	1
• More classroom examples necessary	3
• More materials should be examined at session	
Training Materials	
• Update tutor training filmstrip	1
• Include sample lesson packet	2
Program Procedures	
• Should not use same procedures for every lesson	1
• How do you start children in the program?	1
• Some pupils did not respond during the Placement Test	1
• Size of class should be fifteen so that the teacher can give pupils the necessary attention	1
Program Materials	
• Materials should be sturdier	1
• Need more visuals in program materials	1
• Need more information on administering Placement Test	2
• Need better Placement Test	2
• The way lesson cards are written is confusing	1
• Should have provided materials at start of school	6

lesson packet. Recommendations related to program procedures included varying instructional procedures and reducing class size. Teachers were concerned about the content of the Placement Test and felt more detailed information for administering the test should have been provided.

All LCS trainers indicated they had recommended that teachers follow the prescribed procedures for program use. Eighty-eight percent of the LCS teachers reported following prescribed program procedures.

When asked whether a resource person had been designated to coordinate program use in the district, all LCS trainers responding (12) indicated that such a person had been designated. Of the total number of teachers responding to that question (63), 15 said that no resource person had been designated.

Eighty-four percent (14 of 19) of the LCS trainers indicated that they would conduct follow-up meetings. Forty-eight percent (42 of 89) of the teachers stated that follow-up sessions had been scheduled.

LCS teachers were asked to indicate the major function (e.g., principal, teacher, instructional advisor) of their trainers. In 13 districts, the LCS Coordinator conducted training. In nine districts, the trainer was a fellow teacher. Principals trained in seven districts, and teachers in four districts indicated that they had been trained by SWRL staff.

Phase 3: Trainer and Teacher Responses

Reaction forms were sent to teachers and trainers after the program had been in use a minimum of eight weeks. Table 6 presents the types of questions or problems teachers had early in LCS program use and after eight weeks of program use. Early in the program teachers were concerned with scheduling, motivating students, administering the Placement Test, and receiving program materials. After eight weeks teachers still experienced difficulty with pacing, and expressed problems with gathering or sorting program materials. Comments regarding testing are ambiguous and may relate either to end-of-unit testing or to the Placement Test. Concerns which may relate to Placement Test

Table 6

Types of Questions or Problems Teachers Had Early in LCS Program Use and After Eight Weeks of Program Use (Teacher Response)

Type	Early	Later
Classroom Management	• How to continue with new pupils enrolling during year. • Need bilingual help. • Scheduling.(2)	• Can I group within groups?
Instructional Procedures	• How to motivate children. (3) • Getting non-English speaking children to follow directions. • What indicates to a child that he can give a one word response?	• Maintaining pupil interest. • Assessment and individualized instruction. • Pace of lessons too fast.
Program Materials	• Should have a box of all the necessary objects provided in the kit. • Ellie fell apart the first time I used her. • How to use worksheets.	• Assessment responses not clearly stated. • No correct responses provided on assessment test. • Having trouble with test materials. • Practice sheets monotonous. • Had problem gathering material for lessons. (3) • Sorting out required practice sheets. • Had difficulty handling cards and puppet. • Need new material.
Placement Test	• Practicability of Placement Test. • Test is difficult to administer.(3) • How to adjust placement.	
Material Availability	• Materials didn't arrive on time.	

administration reflect late dates of program initiation in certain classes, or high rates of pupil transiency.

Table 7 presents the questions and problems with which LCS trainers assisted teachers. According to trainers, teachers needed assistance in utilizing tutors and aides, scheduling, and securing program materials. Teachers also expressed concern about the usefulness of the Placement Test. The persistence of problems regarding the Placement Test and material delivery suggests, again, the late initiation of LCS in certain districts.

Table 8 presents LCS teacher responses to the question, "From what source did you seek program assistance, when needed?" Twenty-three percent of the teachers (28) answered their questions through self study; 22 percent sought assistance from the LCS trainer. Eighteen percent received help from another teacher, 17 percent from a resource person, and 15 percent from the principal.

Eighty-nine percent of the LCS trainers indicated that program pacing or instructional scheduling was being monitored in their districts. Eighty-three percent of the LCS trainers (15 of 18) indicated that they were responsible for the collection of quality assurance data from teachers; the remaining 17 percent indicated that a teacher, principal, or resource person collected quality assurance data.

LCS teachers and trainers were asked to suggest training system revisions. Table 9 presents their responses, divided in the following five categories: training procedures, training materials, training personnel, program procedures, and program materials. The most frequent suggestions were for a lesson demonstration and for more in-service training. Trainers also suggested that teacher training be conducted by a SWRL staff member, and teachers, once again, expressed dissatisfaction with the materials and procedures of the Placement Test.

DISCUSSION

Common teacher and trainer reactions to LCS training fall into several general categories. The reactions are listed and discussed below.

Table 7

Types of Questions or Problems with Which LCS Teachers Needed Assistance Early, and After Eight Weeks (Trainer Response)

Type	Early	Later
Classroom Management	• Concerned about tutor program. • How best to utilize aides. • Scheduling problems.	• How to manage tutor time. • How to determine optimal group size.
Instructional Procedures	• Program too structured. • What if a pupil is absent? • Is use of vernacular language allowed?	• Do teachers have to teach one lesson per day? • Assessment techniques. (2) • Individualizing instruction. (2) • Pacing problems.
Program Materials	• Evaluation form not clear. • Lack of concept continuity in program. • No standard response by child required.	• Teachers need activities and materials to vary program routine.
Material Availability	• Getting materials.(5)	• All materials hadn't arrived. (3)
Placement Test	• What to do if child unable to do any of test. • Placement test not useful. (2) • Use of Placement Test causes difficulty.	• Questions involving placement.

Table 8

Sources of Program Assistance for LCS Teachers

	Number of Responses Per Source						
Program	Trainer	Teacher	Resource Person	Principal	Self Study	Other	Total
LCS	26	22	20	18	28	3	118

1. Show examples of LCS in classroom use.
2. Lengthen training session or conduct follow-up training sessions.
3. Placement Test is difficult to administer and to score.
4. Placement Test illustrations are ambiguous.
5. Placement Test should be discussed before instructional materials and procedures.
6. Procedures for involvement of tutors and aides need additional attention during training.
7. Need help with procedures for scheduling and pacing instruction.
8. Would like to see data from previous LCS tryouts.

A 16mm film was prepared for use during 1973-74 LCS training. The film, which replaced the LCS Overview filmstrip, shows program materials in classroom use (item 1).

Development of materials and procedures for follow-up training (item 2) has been undertaken. Follow-up materials, including procedures for facilitating program planning and scheduling (item 7), were introduced in the 1973-74 tryout of the SWRL Communication Skills Program. Appropriate topics for additional follow-up sessions and data for revision of current follow-up materials are being collected by training and installation staff. Procedures for facilitating effective tutor/aide support may represent a likely area for development of additional follow-up materials, particularly for LCS users (item 6).

LCS Placement Test revisions reflect a sensitivity to concerns such as those expressed in items 2, 3, and 4.

1972-73 reaction form data suggest patterns of installation procedures within user districts. For example, follow-up meetings were regularly conducted in some districts, and not in others. Principals were actively involved in LCS program monitoring in some districts. The relationship between such installation procedures and pupil performance and program completion data will be examined in a forthcoming technical note.

Performance and pacing data from previous LCS tryouts (item 8) are now available to school users and to the general educational community. An analysis of this data is presented in

Technical Report 46 and in an LCS Sampler prepared for public information purposes.

Table 9

Categories of Responses by LCS Teachers and Trainers Concerning Revision of the Training System

Category	Trainer	Teacher
Training Procedures	• A more complete overview and observation of program in use. • Program should be sold to administrators so teachers could receive admin. motivation. • Follow-up training with your staff. • Periodic seminars for trainers to review problems. • Role playing, ways of including others on staff. • On site SWRL observation would be welcomed.	• Demonstrate a lesson (13) • Break into shorter meetings covering specific phases of program. • Have more than one session. • More in-service training. (5) • Too structured. • Less repetition.
Training Materials	• Too many manuals to read.	• Complete overview of program so that we are completely familiar with all the vocabulary.
Training Personnel	• Teacher training should be done by LCS staff member. • Provide Lab-conducted training and follow-up for teachers.	
Program Procedures		• Limit group size. • Should have begun earlier.
Program Materials	• Too long a gap between training and receipt of materials	• The Placement Test should be scored higher. • Provide better Placement Test. • Test confusing. • Have explanatory brief on testing procedures. • Write on only one side of lesson cards. • Supply more of the pictures for each lesson. • Revise test. • Deliver materials on time. • Have all materials before training. • Have all materials at training session. (2)

APPENDIX

LCS Staff Trainer's Agenda and Teacher Trainer's Guide

LCS STAFF TRAINER'S AGENDA

I. Overview of LCS Trainer Training
   A. Welcome and Introduction
      1. Introduce self and co-trainer
      2. Make any special introductions necessary
      3. Introduce districts represented, if appropriate
      4. Summarize outcomes of today's session for trainees—what they may expect to know, following the session
   B. Summarize the day's agenda (trainees refer to their agendas, copies of which should be placed at each seat before the training session begins)

II. SWRL Filmstrip and Tape
   A. Filmstrip provides overview of Laboratory that developed LCS
   B. Distinguish between this Lab and other Labs, some of which have similar names

III. LCS Trainer's Guide
   A. Distribute LCS Trainer's Guide
   B. Walk through major sections of Trainer's Guide, as trainees follow along
   C. Note time, equipment, and material requirements
      1. Indicate that district trainers will have all these materials to use with their teachers; district trainers will receive teacher training materials during today's session
      2. Placement Test discussed during Installation Section
   D. Introductions may be either read or paraphrased
   E. Walk through checklists

IV. LCS Teacher Training (follow LCS Trainer's Guide)
   A. Note role switch. SWRL trainer assumes role of district trainer; district trainer assumes role of LCS teacher

B. Introduction Section has already been covered
C. LCS Program Overview (filmstrip and tape)
   1. Script provided to accompany each A-V component
D. LCS Program Materials (tape) Stop tape as necessary
   1. Distribute Sample Materials Packages
E. LCS Program Procedures (filmstrip and tape)
F. LCS Practice for Tutors (filmstrip and tape)
   1. Show Tutor-Aide Training Manual
   2. Instruction must be provided by teacher if tutor or aide are not available
G. LCS Follow-up Materials for Tutors and Aides (tape)
   1. Display Tutorial Record Sheet at appropriate point in tape
H. Question Period - List questions asked
I. Installation Information
   1. Placement Test Materials and Procedures
      a. Scoring
      b. Ordering
   2. Quality Assurance Requirements – Materials and Procedures
      a. LCS Unit Report Sheet
      b. LCS Quality Assurance Agenda and Checklist
      c. Quality Assurance Requirements – Teacher's Summary
      d. Observations and/or interviews may be conducted
      e. Evaluation of training operations – LCS coordinators will receive questionnaires for themselves and teachers
J. Reaction Forms and Closing
   1. Lab Contact Person – Vivian Orange
   2. Name of forms not necessary
   3. Remain for material distribution
   4. We appreciate your interest and look forward with you to a challenging and rewarding year of LCS use
K. Distribute Additional Materials
   1. LCS Sample Materials Packages, if appropriate (1 1/2 per teacher)

2. Additional Teacher Training Packages, if appropriate
3. Tutor-Aide Training Package (generally, 3 per district; final determination should be based on number of schools participating)

L. Complete report on training session

TEACHER TRAINER'S GUIDE

THE ENGLISH LANGUAGE AND CONCEPTS PROGRAM FOR SPANISH-SPEAKING CHILDREN (LCS)

EQUIPMENT CHECKLIST

- ☐ Filmstrip Projector (with extra bulb)
- ☐ Cassette Tape Recorder
- ☐ Screen
- ☐ Extension Cord

MATERIALS CHECKLIST

Filmstrips

- ☐ LCS Program Overview
- ☐ LCS Program Procedures
- ☐ LCS Practice for Tutors

Tapes

- ☐ LCS Program Overview
- ☐ LCS Program Procedures
- ☐ LCS Practice for Tutors
- ☐ LCS Program Materials
- ☐ LCS Follow-Up Materials for Tutors or Aides

Printed Materials

- ☐ Sample Materials Package (one per trainee)
- ☐ Tutorial Record Sheet (one)
- ☐ LCS Program Overview Script
- ☐ LCS Program Procedures Script
- ☐ LCS Practice for Tutors Script
- ☐ LCS Program Materials Script
- ☐ LCS Follow-Up Materials for Tutors or Aides Script
- ☐ LCS Installation Materials

PREPARATION

- ☐ Set up equipment and verify its working order.
- ☐ Organize materials for distribution.
- ☐ Thread filmstrip projector with **LCS Program Overview** and place script beside projector.
- ☐ Insert **LCS Program Overview** tape cassette into recorder.
- ☐ Check that tape is set to play at the beginning.
- ☐ Turn to FOCUS frame and adjust focus.

CONDUCTING THE TRAINING SESSION

Introduction

- Begin the training session with welcoming remarks. Introduce guests and, if appropriate, the school official who will indicate district support of the program. Introduce along the following lines:

  Today's session will acquaint you with the organization, content, and procedures of the SWRL English Language and Concepts Program for Spanish-Speaking Children, called LCS for short. The program teaches Spanish-speaking children the English language and conceptual skills necessary for success in school.

Filmstrip and tape

LCS Program Overview (7 minutes)

Equipment

Cassette Tape Recorder, Filmstrip Projector, Screen

- Introduce along the following lines:
  This filmstrip provides an overview of the LCS Program. It describes several unique features of the program along with a general look at the materials and procedures used.
- Start filmstrip and tape.
  When each tone sounds, turn the filmstrip to the next frame. Refer to the script occasionally to confirm that the replica of the filmstrip pictured on the script is the one being viewed at that time.

Tape
LCS Program Materials (10 minutes)

Equipment
Cassette Tape Recorder

- Replace LCS Program Overview cassette tape with LCS Program Materials tape.
- Distribute Sample Materials Packages and direct teachers to open the package to the first item.
- Introduce along the following lines:

  The package you have just received contains samples of the materials you will be using in the LCS Program. It also contains several reference components that you will find useful throughout the year. As you look through your packages be careful not to get the contents out of order since an audiotape will guide you through an examination of the components in the order in which they are packaged. Raise your hand any time you have a question or lose your place.
- Start tape.
- Hold up each component as the tape discusses it. This will help the teachers find the right component and keep their place.

Filmstrip and tape
LCS Program Procedures (10 minutes)

Equipment
Cassette Tape Recorder, Filmstrip Projector, Screen

- Introduce along the following lines:

  This filmstrip will show you how the materials you have just seen are used in the classroom. Several general instructional procedures are also mentioned.
- Start filmstrip and tape.

  When each tone sounds, turn the filmstrip to the next frame. Refer to the script occasionally to confirm that the frame pictured on the script is the one being viewed at that time.

Question Period (5 to 10 minutes)

TUTOR OR AIDE TRAINING

Introduction

- Introduce along the following lines:

  One of the tasks you will need to perform before beginning the program is to train the tutors or aides who will be working with your pupils. All the information you will need to accomplish this task is contained in the LCS Tutor-Aide Training Manual. During the training session you will be asked to present audiovisual components and monitor a role-playing sequence. We would now like to show you the filmstrip and audio-tape you will present if you use fifth or sixth grade tutors.

Filmstrip and tape
LCS Practice for Tutors (10 minutes)

Equipment

Cassette Tape Recorder, Filmstrip Projector, Screen

- Introduce along the following lines:

  The first component in the Tutor Training Program is a filmstrip which instructs the tutors in some general procedures they should follow when tutoring.

- Start filmstrip and tape.
- At the end of the tape, read the following information:

  If you choose to use adult aides, you may show them the LCS Program Overview, which was the filmstrip you saw first today, in lieu of the LCS Practice for Tutors filmstrip you have just seen, since the last filmstrip is obviously geared to the younger audience, and does not cover any of the general objectives and procedures with which you might want an aide to be familiar. These considerations are discussed more fully in your Tutor-Aide Training Manual.

Tape
LCS Follow-Up Materials for Tutors or Aides (8 minutes)

Equipment

Cassette Tape Recorder

- Introduce along these lines:

  Look in your Sample Materials Package again and take out the sample of the Practice Exercise the tutors or aides will use with their pupils. The tape you are about to hear provides them with explicit instructions on how it is to be used. As directed in your Tutor-Aide Training Manual you will distribute the Practice Exercises, and play this tape for them during training.
- Start tape.
- When mentioned in tape, display Tutorial Record Sheet.

Question Period (5 to 10 minutes)

TRYOUT REQUIREMENTS

(5 to 10 minutes)

- During this section of teacher training, discuss procedures and materials for administering and scoring the Placement Test, and for determining each child's eligibility and placement level in the program. Review the Teacher's Summary of Quality Assurance Requirements and Unit Report Sheet, and indicate data collection schedules and procedures.
- Indicate procedures for obtaining tutor-aide training materials and instructional materials, and identify district personnel available to provide follow-up resource report.

LCS QUALITY ASSURANCE DATA: 1972-73

Ralph A. Hanson, William Doherty, and Patricia Krus

Abstract

The paper summarizes a test of the Quality Assurance System and the data that the system was designed to yield. The summaries consistently indicate high levels of pupil performance on the instructional outcomes of LCS. The performance is robust in a wide variety of school settings with a wide variety of pupils.

The 1972-73 tryout of LCS provided an opportunity to test the Quality Assurance System developed for the Program and also to obtain initial quality assurance data on a large-scale use of the Program. The tryout involved districts from four states: Texas, California, Nevada, and Florida. A total of 35 districts took part in the tryout. These districts varied considerably in terms of their location (urban, rural, border. . ., etc.), overall size, size of Spanish-speaking pupil population, and ethnic background of pupils (i.e., Mexican-American and Cuban-American).

The tryout involved the following procedures.

1. District Coordinator training was conducted by SWRL personnel.
2. Teacher training and distribution of LCS placement materials to teachers were conducted by the District Coordinator.
3. Teachers administered the LCS Placement Aid to prospective students and returned the results to the Coordinators.
4. Coordinators and teachers used the Placement Aid and other information on pupils to order appropriate LCS instructional materials. The placement results and orders for materials were forwarded to SWRL.

5. Teachers began instruction, maintaining the LCS Unit Record Sheet.
6. At midyear (January 15 – February 15, 1973) teachers returned the top sheet of the LCS Unit Report via the District Coordinator.
7. At the end of the school year (May 1 – 15, 1973) teachers administered the LCS Assessment and returned the bottom sheet of the Unit Report to SWRL via the Coordinator.

Quality Assurance Materials

The Quality Assurance (QA) System used in the tryout yielded information concerning both instructional pacing and instructional outcomes of the Program. The data for this information was obtained from three records completed by teachers during LCS instruction: Placement Aid, Unit Report, and End-of-Year Assessment. The district LCS QA Coordinator was responsible for the distribution and return of QA records.

Placement Aid. The Placement Aid was a set of eighteen items introduced by two sample items which was individually administered to pupils. It assisted the teacher in determining the pupil's entry point for LCS instruction. For QA purposes this record was a convenient source of demographic information (age, grade, sex and a teacher rating of English language ability) in addition to designating instructional placement decisions.

Unit Report. The Unit Report was used by teachers to maintain a record of Unit Assessment results and completion dates. For QA purposes the Record Sheet was also used to transmit placement data and days absent for each pupil for analysis with the proficiency and pacing indicators.

End-of-Year Assessment. The End-of-Year Assessment was the measure described earlier in the monograph.

User Reports. In addition to providing data for this tryout report the QA materials were used to generate program user reports with a unique report generated for each district, school,

and class which participated in the tryout. The user reports consisted of a computer-generated summary and an accompanying printed interpretive guide. They were distributed to each district upon completion of the school year. The appendix includes a sample copy of the QA report guide.

Description of Participants and Program Placement Procedures

Table 1 gives an overall indication of the size of the tryout and the number of completed record forms received.

Table 1

1972-73 LCS Quality Assurance Participants

	Materials Sent	Placement Test	Unit Report	End-of-Year Assessment
Districts	35	35	31	31
Schools	108	108	57	55
Pupils	----	3811	1149	871

The LCS Program placement procedures merit discussion because they represent a new approach to an old problem. Program placement based upon entry-level skills is the initial decision area in the Program, and the decision rests solely with the teacher. However, this decision is supported by information from a subsystem, termed the Placement Aid, developed for this specific purpose. The Placement Aid record sheet provided information both about the pupils considered for program placement and initial placement information on those who actually did participate.

The sex, age, and grade level of pupils who received the LCS Placement Aid are presented in Table 2. The pupils ranged in age from 4 to 13 years. Most of the pupils (63%) were less than seven years of age and very few of the pupils (7%) were over 9 years of age when they began the program. The modal age for starting the

Table 2

Characteristics of Pupils Who Received The LCS Placement Test

		Number of Pupils	%
Sex	Male	1936	51
	Female	1830	48
	No Info.	45	1
Age	4	136	4
	5	1517	40
	6	732	19
	7	286	8
	8	207	5
	9	160	4
	10	117	3
	11	75	2
	12	55	1
	13	8	0
	No Info.	518	14
Grade	K	2082	55
	1	895	23
	2	324	9
	3	232	6
	4	129	3
	5	68	2
	6	56	1
	7	1	0
	8	2	0
	No Info.	22	1

program was 5. The pupils ranged in grade from kindergarten to grade 8, with more than three-fourths in kindergarten or first grade.

Teacher ratings of the English language usage of pupils are presented in Table 3, as well as the number of percent of the actual instructional placements. It is interesting to note the correspondence between the English usage ratings and the placements. Approximately 2400 pupils or 60% of the total were rated as either not speaking English or doing so with a pronounced accent. Over three-fourths of all pupils either spoke no English or had an accent.

Table 3

Characteristics of Pupils Who Received
The LCS Placement Test

		N	%
Language Rating	Does not speak English	1357	36
	Has pronounced accent	906	24
	Has light accent	663	17
	Has no accent	494	13
	No info.	391	10
Assignment	LCS 1	2159	57
	LCS 9	627	16
	Reading	570	15
	Other	120	3
	No info.	335	9

The proportional figures for pupil placement in LCS Unit 1 and LCS Unit 9 directly correspond to rated English usage.

Table 4 gives the cross-tabulations of rated-English usage and LCS placement. Most of the pupils placed in LCS1 (86%) did not speak English or did so with a pronounced accent. In contrast, pupils placed in LCS9 tended to be equally represented in all categories of language usage. However, the relative proportion of pupils placed in LCS9 (15% of total) was much smaller than the proportion of pupils placed in LCS1. This suggests that either schools preferred placement in LCS1 for almost all eligible pupils, or that the program was used primarily with pupils with a striking English language deficit and that teacher decisions leading to "advanced" placement in the program took into account information in addition to that yielded by the Placement Aid.

Table 4

Cross Tabulations of Rated English Language Usage and LCS Placement

		Rated English Usage				
		Not Rated	No English	Pronounced Accent	Slight Accent	No Accent
LCS 1	NUMBER	308	354	183	83	60
	PERCENT	31.1	35.8	18.5	8.4	6.1
LCS 9	NUMBER	5	40	46	29	41
	PERCENT	3.1	24.8	28.6	18.0	25.5

Cross-tabulation of recommended and actual placement is given in Table 5. The results indicate that teachers tended to place pupils in accordance with the LCS placement guidelines. This was especially true when pupils' scores fell into the two

Placement Aid categories which recommended placement in LCS Unit 1 or Unit 9. In these cases less than 5% of the pupils were placed differently than the Aid recommended.

Table 5

Summary of Placement Procedures

Computed Score and Recommended Placement	Program Assignment					
	Not Reported	LCS 1	LCS 9	Other	Reading	All Pupils
8-24 Reading	61	3	31	101	486	682
25-32 LCS 9	1	7	210	1	5	224
40 LCS 1	110	825	2	5	1	943
Combined	162	835	243	99	463	1781
Mean Score	29.86	39.80	26.30	17.83	13.59	28.86
S.D.	13.77	1.91	3.77	6.95	5.30	8.06

Unit Performance During the Year

A score frequency, mean, and N for each unit assessment completed by LCS 1 and 9 and pupils are given in Tables 6 and 7. The results for LCS1 (Table 6) indicate that extremely high levels of performance were obtained across all units completed. For each unit, the highest possible score (10) was the modal value and the preponderance of pupils scored either 9 or 10 in every case. The unit performance results for LCS 9 pupils (Table 7) are at similarly high levels across all units.

Program Pacing

Important information in Tables 6 and 7 is the different number of units completed by pupils. Thus, although pupils score at high levels on LCS Units, they clearly do not all complete the same number of units over a school year. This result is consistent with prior findings that pupils instructed with LCS "matriculate" into the program and are "graduated" during the school year.

Table 6

LCS 1 Unit Performance: Number, Frequency Distribution
Mean and Standard Deviation

		Unit Assessment Scores												
Unit	**N**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Mean**	**S.D.**
1	960	0	0	4	4	6	10	35	42	91	184	584	9.18	1.35
2	862	0	2	1	1	5	8	16	36	74	175	544	9.30	1.22
3	785	0	0	0	0	3	4	8	18	44	88	620	9.61	0.90
4	707	0	0	1	4	3	8	13	36	66	148	428	9.24	1.25
5	626	1	0	1	1	6	7	23	41	98	155	293	8.94	1.37
6	455	0	0	1	1	1	5	16	35	94	103	199	8.88	1.29
7	229	0	0	0	1	0	4	4	13	35	64	108	9.05	1.20
8	148	0	0	0	1	1	1	0	3	14	36	92	9.38	1.08
9	76	0	0	0	0	0	4	2	4	5	20	41	9.07	1.38
10	51	0	0	0	0	1	3	1	3	2	11	30	9.03	1.58
11	37	0	1	0	0	0	1	2	5	5	11	12	8.43	1.84
12	44	0	0	0	0	0	0	0	0	2	8	34	9.72	0.54
13	27	0	0	0	0	0	0	0	0	1	6	20	9.70	0.54
14	18	0	0	0	0	0	0	0	0	0	3	15	9.83	0.38
15	3	0	0	0	0	0	0	0	0	0	0	3	10.00	0.00

Table 7

LCS 9 Unit Performance: Number, Frequency Distribution
Mean and Standard Deviation

		Unit Assessment Scores												
Unit	**N**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Mean**	**S.D.**
9	161	0	1	0	0	2	5	5	9	19	32	88	8.98	1.54
10	154	0	0	0	1	2	1	1	8	15	31	95	9.26	1.25
11	136	0	0	0	0	2	1	2	8	18	30	75	9.15	1.23
12	117	0	0	0	0	0	1	3	9	8	30	66	9.23	1.12
13	107	0	0	0	0	0	1	2	4	13	24	63	9.29	1.04
14	74	0	0	0	0	0	0	0	0	3	18	53	9.67	0.55
15	42	0	0	0	0	0	0	0	1	1	6	34	9.73	0.62

A summary of the duration (in days) of each unit is presented in Table 8 for LCS 1 pupils and in Table 9 for LCS 9 pupils. Both the mean and median number of days are given along with the corresponding dates.

Table 8

LCS 1 Unit Completion Dates and Unit Duration

Unit	N	Mean Date	Median Date	Mean Duration	Median Duration
1	960	Dec. 28	Dec. 8	43.08	33.0
2	862	Jan. 31	Feb. 2	39.06	35.0
3	785	Mar. 8	Mar. 2	35.96	30.0
4	707	Mar. 30	Mar. 30	28.91	30.0
5	626	Apr. 23	May 3	28.27	26.0
6	455	May 9	May 17	27.44	27.0
7	229	May 14	May 22	18.84	18.0
8	148	May 18	May 30	13.41	12.0
9	76	Mar. 16	Apr. 25	15.78	14.0
10	51	Mar. 29	Apr. 3	29.08	31.0
11	37	Apr. 2	Mar. 28	34.25	22.0
12	44	May 1	May 12	26.46	14.0
13	27	Apr. 23	Apr. 24	17.93	21.0
14	18	May 14	May 8	31.55	42.0
15	3	May 31	May 31	8.00	8.0

Table 9

LCS 9 Pacing: Unit Completion Date and Unit Duration

Unit	N	Mean Date	Median Date	Mean Duration	Median Duration
9	161	Dec. 14	Nov. 18	61.64	31.00
10	154	Jan. 25	Jan. 23	42.75	29.00
11	136	Mar. 6	Feb. 28	48.31	36.00
12	117	Mar. 30	Mar. 19	41.91	36.00
13	107	Apr. 24	Apr. 23	31.22	27.50
14	74	May 12	May 9	34.36	37.50
15	42	May 28	May 30	39.47	27.00

In interpreting the information in Tables 8 and 9 it is important to note that the durations of initial units are spuriously inflated, since new pupils arriving during the school year begin with early units. This situation is supported by the large differences between the *mean* and *median* durations. As instruction progresses, the number of pupils completing a unit must continue to decline, since arriving after the start of the school year will typically not complete all units of the program. In most cases, only those pupils remaining in the same school (and LCS class) for the entire school year will be reflected in the completion figures for the later program units. Thus the figures in Tables 8 and 9 overestimate the durations involved in unit instruction for pupils individually. Rather, they indicate the approximate time period over which instruction on a given unit is provided.

End-of-Year Performance

A summary of pupil performance on the end-of-year measure is given in Table 10. The categorical distribution of scores on the

Table 10

End-of-Year-Performance

		Concept Identification					Concept Statement					Language Production				
Score Category		0-3	4-6	7-9	10-12	13-15	0-3	4-6	7-9	10-12	13-15	0-2	3-4	5-6	7-8	9-10
LCS 1	Number	6	8	37	190	505	12	50	100	332	252	26	35	53	93	236
	Percent	0.8	1.1	4.9	25.4	67.7	1.6	6.7	13.4	44.5	33.8	3.5	4.7	7.2	12.9	71.9
	Mean			12.92					11.05					8.06		
	Standard Deviation			2.19					2.80					2.32		
LCS 9	Number	2	0	0	9	114	2	0	6	50	67	1	3	1	8	112
	Percent	1.6	0	0	7.2	91.2	1.6	0	4.8	40.0	53.6	0.8	2.4	0.8	6.4	89.6
	Mean			13.86					12.51					9.43		
	Standard Deviation			2.01					2.28					1.46		

three outcomes reflected in the assessment indicates the high overall performance attained by pupils on these measures.

Cross-tabulations were computed showing performance within outcome area grouped by how many units pupils completed. These data are given in Tables 11 and 12. The mean scores on the assessment outcomes increase for groups of pupils completing more units. The variability of obtained assessment measures was greatest for pupils who completed the fewest units. Most LCS1 pupils completed four to six units, and almost a third of the LCS1 pupils completed more than six units. Most LCS9 pupils completed five to six units.

The relation between absence from school and program performance is explored in Tables 13 and 14. The frequency distribution of cumulative days absent given in Table 13 shows that as the number of units completed increases the percent of absences decreases. The pupils who completed only the initial units were absent more than pupils who completed more units. Of LCS1 pupils, no pupil absent 11 or more days completed more than six units of instruction. Except for one, all LCS1 pupils who completed more than nine units of instruction were absent seven or less days. Approximately the same pattern of more units completed for those absent less is evident with the LCS9 pupils. These findings contribute to the conclusion supported throughout this inquiry that pupil performance is sensitive to instruction in the program as evidenced by time indicators.

Summary

The 1972-73 tryout of the English Language and Concepts Program for Spanish-Speaking Children (LCS) was conducted with 3,811 pupils located in 35 school districts in four states: California, Florida, Nevada, and Texas. Although the pupils ranged in age from 4 to 13 years, most (63%) were under 7 years of age and few (7%) were over 9 years of age when beginning the program. This proportionality reflects the recommendation in arranging the tryout that children with English language diffi-

Table 11

End-of-Year Performance vs. the Number of Units Completed

			Assessment Outcomes					
			Concept Identification		Concept Statement		Language Production	
		N	Mean	S.D.	Mean	S.D.	Mean	S.D.
LCS 1 Units Completed	1-3	136	11.8	2.7	9.1	3.4	6.8	3.2
	4-6	386	12.9	2.0	11.0	2.5	8.8	2.0
	5-9	201	13.6	1.8	12.3	2.1	9.3	1.6
	10 or more	23	13.9	1.5	12.9	1.8	9.3	1.6
LCS 9 Units Completed	1-2	10	12.2	4.4	10.7	4.1	7.2	3.6
	3-4	27	13.7	1.2	12.1	1.7	9.6	1.0
	5-6	52	14.1	1.1	12.8	1.6	9.6	0.7
	7	36	14.1	2.3	13.0	2.6	9.7	1.1

Table 12

Number of Units Completed for Each Entry Lead Group

		Units Completed						
		1-3	4-6	7-9	10 or More	N	Mean Units Completed	Standard Deviation
LCS 1	Number	225	503	207	24	989	5.08	2.28
	Percent	26	51	21	2			
		1-2	3-4	5-6	7			
LCS 9	Number	24	33	75	39	161	4.91	1.77
	Percent	15	21	40	24			

Table 13

Frequency Distribution of Number of Days Absent for Each Unit

				Cumulative Units Completed														
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LCS 1	Days Absent by Unit	0-3	N	368	328	315	293	248	178	76	35	29	12	7	21	9	4	1
			%	38	36	40	41	37	39	33	24	38	24	19	47	33	22	33
		4-7	N	165	135	95	75	70	40	14	4	2	3	3	1		2	
			%	17	15	12	11	10	9	6	3	3	6	8	2		11	
		8-10	N	37	27	21	10	5	7	6	2			1				
			%	4	3	3	1	1	2	3	1			3				
		11 or More	N	35	28	10	3	6	1									
			%	4	3	1	0	1	0									
		No Data	N	356	345	345	326	297	229	133	107	45	36	26	22	18	12	2
			%	37	38	44	46	44	50	58	72	59	71	70	49	67	67	67
LCS 9	Days Absent by Unit	0-3	N									62	73	53	49	50	33	16
			%									39	47	39	42	47	43	38
		4-7	N									13	14	10	8	8	7	5
			%									8	9	7	7	7	9	12
		8-10	N									7	2	1	2	2	2	
			%									4	1	1	2	2	3	
		11 or More	N									2			1			
			%									1			1			
		No Data	N									79	65	72	57	47	32	21
			%									49	42	53	49	44	42	50

Table 14

Number of Days Required to Complete Unit Instruction (Unit Duration) By Days Absent

			Unit														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LCS 1 Days Absent By Unit	0-3	N	361	324	293	286	247	174	76	32	13	6	5	11	4	2	1
		Mean	44.8	39.5	34.4	30.8	28.9	29.5	19.6	13.7	15.3	32.3	45.4	27.2	18.3	27.0	8.0
		S.D.	29.6	18.0	14.3	10.7	12.3	11.7	9.6	6.4	4.6	22.4	29.6	20.3	6.9	26.9	0.0
	4-7	N	162	134	88	71	69	40	13	4		3	3	1			
		Mean	53.7	46.3	40.6	34.0	31.6	30.8	20.6	25.8		50.0	64.3	56.0			
		S.D.	31.5	19.9	17.9	8.4	12.1	11.5	6.0	11.3		16.5	2.5	0.0			
	8-10	N	37	27	19	8	5	6	5	2							
		Mean	54.1	48.2	50.9	33.6	33.2	35.3	22.4	30.0							
		S.D.	34.2	16.8	27.2	14.1	15.9	14.9	13.4	0.0							
	11 Or More	N	34	26	10	2	6	1									
		Mean	79.9	55.4	58.4	44.0	29.8	32.0									
		S.D.	44.7	22.9	24.7	22.6	17.4	0.0									
LCS 9 Days Absent By Unit	0-3	N									53	70	49	47	49	33	14
		Mean									33.2	47.3	35.1	36.0	27.0	36.1	25.1
		S.D.									17.9	23.9	12.4	7.3	11.1	9.9	7.1
	4-7	N									9	14	10	7	8	7	5
		Mean									36.4	66.2	40.8	36.7	34.8	39.4	28.6
		S.D.									10.4	24.1	10.2	2.7	21.9	8.2	17.3
	8-10	N									6	2	1	2	2	2	
		Mean									54.3	25.5	27.0	41.0	17.0	48.0	
		S.D.									26.3	10.6	0.0	2.8	2.8	0.0	
	11 Or More	N												1			
		Mean												34.0			
		S.D.												0.0			

culties begin LCS instruction as they begin school. The degree of the pupils' language difficulty was pronounced. Most of the pupils (86%) who began LCS instruction in the first unit did not speak English at all or did so with a pronounced accent. Of the pupils who began instruction with Unit 9, 53% spoke no English or did so with a pronounced accent. There was high correspondence between actual and recommended placement in the program.

Performance of pupils was documented both during and at the end of the program. En-route performance was assessed by a 10-item criterion exercise administered after completion of unit instruction. High overall performance was attained by pupils on these measures. For all units, the modal score was the maximum score of 10. Assessment of en route program pacing indicated that the average unit duration of Units 1-9 ranged from 13 to 43 days, and for Units 9-15, 31 to 62 days. Pupil performance on the instructional outcomes of LCS was assessed at the end of the year. The attainment on each of the three outcome areas assessed (concept identification, concept statement, and language production) was high with little variability in pupil performance. A positive relation between number of units completed and performance within the three outcome areas was evident.

In sum, the 1972-73 quality assurance data for LCS appear to support the robustness of LCS instruction at a high level of effectiveness. The summary data consistently indicate high levels of pupil performance on the instruction outcomes of LCS. This proficiency was attained in a wide variety of school settings with a wide variety of pupils.

APPENDIX

ENGLISH LANGUAGE AND CONCEPTS FOR SPANISH-SPEAKING CHILDREN:

QUALITY ASSURANCE DISTRICT REPORT GUIDE

The Quality Assurance (QA) reports summarize information provided by teachers in your district using the English Language and Concepts for Spanish-Speaking Children Program (LCS). Summaries for the district and each school are provided to program users. A sample copy of a district report can be found on page 6.

This District Report Guide is divided into two sections: a guide to interpretation of the District Report, and an interpretative background information section about the LCS program and QA procedures. Persons who are not familiar with the LCS program and the QA procedures should read the Interpretative Background Information section before the District Report Interpretative section.

District Report Interpretation

Content

The District Report includes separate summaries of each LCS school and an overall summary based on all the district schools (see sample on page 6). The same report format is used, however, for both levels of reporting. This format was designed to provide basic information on the three instructionally meaningful groups of pupils in LCS. Two of these groups represent pupils entering at either Unit 1 or Unit 9 of LCS. Placement of pupils in these groups is based on their level of English Language proficiency and consistent with recommended program procedures.

The last section provides descriptive information on the age, grade, and Placement Test scores of all pupils in LCS. Frequency distributions showing the number of pupils in LCS at each age from under five (–5) to over 11 (+11), at each grade level from Kindergarten (K) to beyond seventh grade (7+), and attaining a

Placement Test score in the score categories of 0-24, 25-32, or 33-40 are presented. For each characteristic, the "ND" column indicates the number of pupils for whom "no data" was available.

Interpretation

Interpretation of the data for each group should begin with the time of year when LCS instruction was initiated. This date is important for determining how many units can be expected to be completed by the pupils. Typically, pupils entering at LCS unit 1 should complete at least the first nine units during the school year, while those entering at unit 9 should complete through unit 15. However, the later in the year that LCS is started, the fewer the number of units that would be expected to be completed.

The duration of instruction should be relatively constant across the completed units. Any large deviations from a constant duration pattern may indicate either that instruction was interrupted for some reason or the content proved especially difficult for pupils. In some cases units with large durations are the result of spanning a school vacation.

Reasonable progress through the LCS units is a matter of not only duration of instruction but also of pupil age; it is expected that older pupils and those from higher grade placements would proceed at a faster rate through the LCS program and perform at a higher level than younger children receiving the same instruction. Also, pupils in different instructional groups, i.e., LCS 1 or LCS 9, should have attained different score levels on the Placement Test. To the extent that this is the case, it indicates that placement was consistent with the recommended procedure.

The level of performance on the Placement Test may be useful in interpreting subsequent performance on the Unit and End-of-Year Assessments. Clearly, pupils entering with lower scores (greater English proficiency) would be expected to proceed at faster rates with higher performance than those entering with less English proficiency.

DISTRICT HUNTINGTON — ENGLISH LANGUAGE AND CONCEPTS FOR SPANISH SPEAKING CHILDREN
1972-73 INSTALLATION

LCS 1 (91 PUPILS)

UNIT PACING AND PROFICIENCY

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9	UNIT 10	UNIT 11	UNIT 12	UNIT 13	UNIT 14	UNIT 15
COMPLETION DATE	FE 7	MR 3	MR31	AP11	AP28	MY 5	NYBO	JN 8	JN15						
DURATION IN WEEKS	7	3	3	5	7	1	8	3	1						
NUMBER OF 0-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PUPILS 7-7	2	1	1	0	1	0	1	0	5	0	0	0	0	0	0
SCORING 8-10	47	45	35	34	27	17	16	16	4	0	0	0	0	0	0
TOTAL NUMBER OF PUPILS	49	46	36	34	28	19	17	17	9	0	0	0	0	0	0

END OF YEAR ASSESSMENT (91 PUPILS TESTED)

OUTCOME	CONCEPT IDENTIFICATION				CONCEPT STATEMENT				LANGUAGE PRODUCTION				
SCORE CATEGORY	0-3	4-6	7-9	10-12	13-15	0-3	4-6	7-9	10-12	13-15	0-2	3-4	5-6	7-8	9-10
NUMBER OF PUPILS	1	0	1	18	89	1	3	10	18	11	6	1	0	2	32

LCS 9 (48 PUPILS)

UNIT PACING AND PROFICIENCY

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9	UNIT 10	UNIT 11	UNIT 12	UNIT 13	UNIT 14	UNIT 15
COMPLETION DATE									JA 6	FE 2	FE23	MR14	AP10	MY18	MY30
DURATION IN WEEKS									7	4	3	3	4	5	2
NUMBER OF 0-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PUPILS 7-7	0	0	0	0	0	0	0	0	12	0	11	10	10	0	10
SCORING 8-10	0	0	0	0	0	0	0	0	36	48	37	38	38	48	35
TOTAL NUMBER OF PUPILS	0	0	0	0	0	0	0	0	48	48	48	48	48	48	45

END OF YEAR ASSESSMENT (48 PUPILS TESTED)

OUTCOME	CONCEPT IDENTIFICATION				CONCEPT STATEMENT				LANGUAGE PRODUCTION				
SCORE CATEGORY	0-3	4-6	7-9	10-12	13-15	0-3	4-6	7-9	10-12	13-15	0-2	3-4	5-6	7-8	9-10
NUMBER OF PUPILS	0	0	0	10	38	0	0	0	13	35	0	0	0	10	38

LCS OTHER (11 PUPILS)

UNIT PACING AND PROFICIENCY

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9	UNIT 10	UNIT 11	UNIT 12	UNIT 13	UNIT 14	UNIT 15
COMPLETION DATE				MR14	MR28	AP28	MY16	JN 8							
DURATION IN WEEKS				7	4	5	3	1							
NUMBER OF 0-6	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
PUPILS 7-7	0	0	0	0	0	0	11	1	0	0	0	0	0	0	0
SCORING 8-10	0	0	0	10	11	11	10	9	0	0	0	0	0	0	0
TOTAL NUMBER OF PUPILS	0	0	0	11	11	11	11	11	0	0	0	0	0	0	0

END OF YEAR ASSESSMENT (11 PUPILS TESTED)

OUTCOME	CONCEPT IDENTIFICATION				CONCEPT STATEMENT				LANGUAGE PRODUCTION				
SCORE CATEGORY	0-3	4-6	7-9	10-12	13-15	0-3	4-6	7-9	10-12	13-15	0-2	3-4	5-6	7-8	9-10
NUMBER OF PUPILS	0	0	1	10	0	0	0	1	8	2	0	0	1	8	2

PUPIL CHARACTERISTICS BY PROGRAM ENTRY POINT

PLACEMENT	AGE AT ENTRY										GRADE								PLACEMENT SCORE		
ASSIGNMENT	<5	5	6	7	8	9	10	11	12+	NO	K	1	2	3	4	5	6	7	7+	NO	0-24	25-32	33-40	NO
LCS 1	0	8	9	3	2	0	1	0	1	73	18	10	2	0	3	1	2	0	0	73	0	2	26	25
LCS 9	0	0	3	21	20	0	1	1	2	0	0	4	20	18	11	1	2	0	0	0	0	28	10	10
OTHER	0	0	0	10	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	11
TOTAL	0	8	12	34	22	0	2	1	3	24	18	14	22	18	14	2	4	0	0	24	0	30	36	44

Finally, as indicated earlier, the District Report presents separate summaries at the school and district level. This allows examination of the overall performance levels of the pupils involved and the number of units completed during the school year at each school and across the district. Absenteeism and drop-out trends associated with specific schools should be investigated and considered when examining this information. Also, the relative standing in terms of end of program performance for comparative instructional groups from different schools should be a function of the amount of instruction completed, though other considerations may enter the picture. To assist in the interpretation of the district results, a sample district report is included which reflects adequate performance and pacing for the two primary instructional groups.

Interpretative Background Information

The LCS Program

The SWRL English Language and Concepts Program for Spanish-Speaking Children (LCS) is a research-based program to aid Spanish-speaking pupils in acquiring the English language proficiency needed for success in reading and other formal instruction in the primary grades. It consists of 15 instructional units. LCS builds on the pupil's proficiency in Spanish terms and phrases to promote his school success in two important ways.

- First, LCS teaches useful conversational patterns for communication in the school, in the home and other social areas outside of these institutions.
- Second, LCS provides the pupil with useful information and experience he needs to function effectively in his daily living.

LCS instruction is flexible and manageable for all teachers, appealing and uncomplicated for pupils.

Quality Assurance Materials

The 1972-73 Quality Assurance (QA) System for LCS includes specific materials and procedures to help each district and school

efficiently monitor the LCS Program. A district LCS QA Coordinator was responsible for the distribution and return of QA components. Three QA components were completed by teachers during LCS instruction:

- **LCS Placement Test.** The LCS Placement Test is a set of eight test and four sample items. These items are individually administered to pupils prior to or at the start of the school year. It assists the teacher in determining the pupil's entry point for LCS instruction. The items were formulated to elicit a verbal reponse from the pupil which would include a verb phrase. A sample item is given on the next page.

  administration by teachers. The teacher records the pupil's response to each item on the LCS Placement Test Record Sheet. In addition to the Placement Test scores, each pupil's age and grade level at time of entry into LCS were recorded on the Placement Test Record Sheet.
- **LCS Unit Record Sheet.** The Unit Record Sheet is used by the teacher to maintain a record of Program entry date, Unit Assessment scores, completion dates and days absent for each pupil. Part of a completed Record Sheet is illustrated below.

LCS UNIT RECORD SHEET

DISTRICT Omega Unified Sch. Dist.
SCHOOL Apollo School
TEACHER Mrs J. Smith

PUPIL NAME	ENTRY DATE	UNIT 1			UNIT 2			UNIT 3			UNIT 4			UNIT 5			UNIT
		DATE			DATE			DATE			DATE			DATE			
	MO. DAY	MO. DAY			MO. DAY			MO. DAY			MO. DAY			MO. DAY			
Alpha, A	10 13	10 11 81	–		10 12 7	1		9 1 11	–		6 2 9	–		10 2 20	–		
Beta, B	10 13	8 11 21	4		10 12 7	–		7 1 11	–		8 2 3	–		9 2 20	–		
Gamma, G	10 13	9 11 21	–		9 12 7	–		6 1 11	–		10 2 3	1		10 2 20	–		
Delta, D	11 6	9 11 15	–		8 12 7	–		10 1 11	–		8 2 9	–		8 2 20	1		
Epsilon, E	12 4	5 1 5	–		7 1 31	2		9 2 10	–		7 2 20	–		9 3 10	–		

Sample Item

ILLUSTRATION

QUESTION

THESE CATS ARE STANDING ON A BRANCH VERY HIGH UP IN A TREE.

(Point to a.)

THIS CAT IS GOING TO FALL!

(Point to b.)

THIS CAT IS NOT GOING TO FALL.

WHICH CAT HAS A HAT. THE CAT THAT IS GOING TO FALL OR THE CAT THAT IS NOT GOING TO FALL? REMEMBER THE ANSWER MUST START WITH "THE CAT THAT."

POSSIBLE ANSWERS

(1) THE CAT THAT IS NOT { GOING TO FALL. / GONNA FALL. / FALLING. }

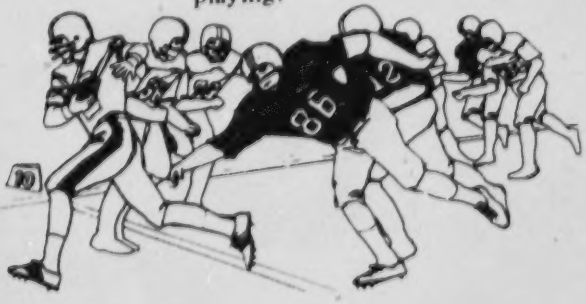
(3) THE CAT THAT *(where)* { HE / SHE / IT / HIM / HER } *(is)* { NOT / NO } { GOING TO FALL. / GONNA FALL. / FALLING. }

(5) ANY OTHER ANSWER OR NO ANSWER.

- **LCS End-of-Year Assessment.** The LCS End-of-Year Assessment consists of items that sample from three major LCS outcome areas. The first 15 items deal with Concept Identification and require that the pupil point to an object in response to a question. The second 15 items from the Concept Statement outcome require the pupil to produce a short verbal response about a stimulus picture. The last 10 items assess Language Production and require that the pupil produce a complete English sentence.

All assessment items are included in a booklet for administration by teachers at the end of the school year or completion of LCS instruction. Pupil responses to each item are recorded by the teacher on the LCS Pupil Response Sheet. Presented below is an illustrative item from each outcome section.

Assessment Section	Sample Item	No. of Items
Concept Identification	Point to the doctor.	15
Concept Statement	What sport are they playing?	15



Assessment Section	Sample Item	No. of Items
Language Production		10

A. **CONTEXT:** Ellie has the pencil.

B. **REQUEST:** Ellie thinks the pencil is red, tell Ellie, "It is yellow."

C. **RESPONSE:** [It is / It's / The pencil is] yellow.

D. **REINFORCEMENT:** Thank you.

QA Information for Teachers and the District Coordinators

In addition to the three LCS-QA components, a Teacher Summary Sheet was distributed at the beginning of the school year to assist the teacher in using the LCS-QA materials. It provides a brief description of QA events and the dates on which they were to occur.

The LCS Coordinator Agenda and Checklist were provided to assist the district coordinator in organizing QA activities for participating schools. The Agenda lists the dates of all events and the Checklist helps the coordinator keep track of the receipt, distribution and return of completed components.

LCS QUALITY ASSURANCE INQUIRY: 1973-74

Ralph A. Hanson and Jerry Bailey

Abstract

This paper summarizes the use of the LCS Program and provides extensive Quality Assurance data derived during the first year of commercial distribution without the direct assistance/support of SWRL. The results confirm and extend the findings of earlier studies of LCS. All indicators of program effectiveness point to considerable robustness of desired effects under a remarkably wide range of use conditions.

This document describes the results of the 1973-74 installation of the English Language and Concepts Program for Spanish-Speaking Children (LCS). Analyses of extensive data on the program are presented from 35 districts and approximately 115 schools in three separate areas of the country. Through an examination of program use and characteristics of participants, the data provide important evidence on the effectiveness of LCS in attaining its prespecified objectives.

This installation was significant for several reasons. First, it marked the first time all aspects of the program's instructional, training/installation, and quality assurance (QA) systems were fully exercised under commercial conditions. Second, the participants involved in the inquiry represented the full diversity in instructional settings that typically serve Mexican-American children. Finally, the report constitutes an aggregate of cumulative information acquired from previous inquiries involving LCS (Molina, 1973) and corroborates the findings of Hanson and Schutz (1975) and others (Stallings & Kaskowitz, 1974) that concern the effects of programmatic R&D on schooling and the effects of schooling on students. Thus the data and the analyses have both program-specific and education-general import.

Tryout and quality assurance materials and procedures were essentially the same as those for the 1972-1973 tryout. The only exception was the non-involvement of SWRL in training instructional personnel and supplying instructional materials. The publisher assumed these responsibilities.

DESCRIPTION OF PARTICIPANTS AND PROGRAM PLACEMENT PROCEDURES

LCS participants from California, Florida, Nevada, and Texas took part in the inquiry. The number of pupils, classes, schools, and districts presented in Table 1 gives the number of participants that returned specific types of tryout information. The data indicate that returns were similar for all tryout components except the End-of-Year Status information form. This form was distributed late in the school year through school administrative channels and did not come to the attention of all participants in sufficient time to be returned with other tryout information forms.

Table 1

Number of Participants in the Tryout

Component	Number Returning			
	Pupils	Classes	Schools	Districts
Placement Test Score	2044	136	91	31
Placement Aid Information	2436	150	99	31
Unit Record Sheet	3132	172	115	35
End-of-Year Assessment	2229	149	98	31
End-of-Year Status	1834	103	76	27

Pupil Characteristics

A description of the participating pupils is given in Table 2. The array shows that the pupil set is composed of approximately equal numbers of males and females. The pupils were drawn, however, from a wide range of age and grade placements.

Table 2

Description of Pupils

Characteristic	Categories	Number	Percent
Sex			
	Male	979	51
	Female	953	49
Age			
	≤ 4	25	2
	5	694	43
	6	364	22
	7	169	10
	8	123	8
	9	68	4
	10	79	5
	11	55	3
	≥12	54	3
Grade			
	K	963	48
	1	397	21
	2	200	11
	3	142	8
	4	66	3
	5	78	4
	6	85	5
	≥ 7	3	0
English Proficiency	None	641	39
	With Accent	743	45
	Without Accent	263	16
Placement in Program			
	LCS 1	2,384	76
	LCS 9	748	24

Although the majority are 5 or 6 years old with grade placement in kindergarten or first grade, the children range in age up to 12 years and in grade placement up to grade 7. The wide range of pupils' ages and grade levels is an unusual and significant aspect of the LCS Program. Typically, an instructional program is used

by a much narrower and more homogeneous age/grade group. The data also show that 84% of the LCS pupils either did not speak English or did so with an accent upon entering the program, as judged by the teacher.

Placement

The distributions of scores on the Placement Aid for those pupils actually placed in LCS 1 and LCS 9 are shown in Figures 1 and 2. For the LCS 1 group, the school level data describe a positively skewed distribution, whereas at the pupil level the distribution is close to rectangular. For LCS 9, the distribution is negatively skewed for both pupils and schools. Together, the figures show a wide difference in average school performance for pupils placed in LCS 1 and LCS 9. The overlap in the distributions is minimal.

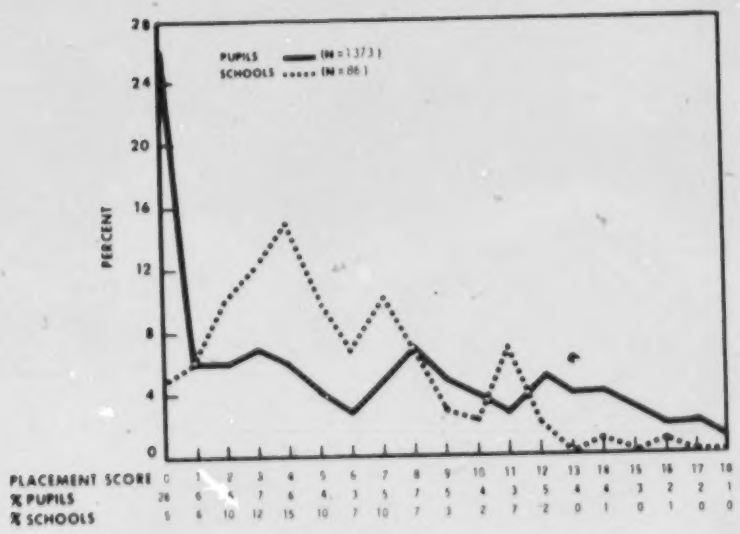


Figure 1. Distribution of Placement Aid scores for LCS 1 pupils and schools.

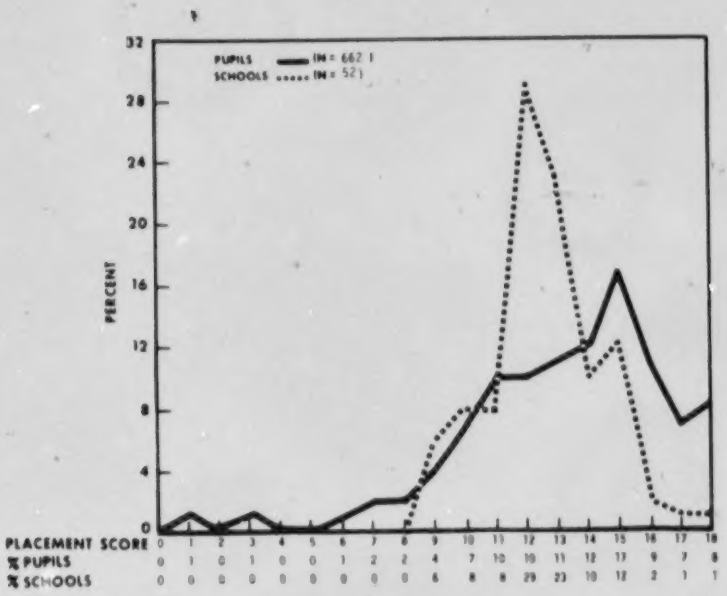


Figure 2. Distribution of Placement Aid scores for LCS 9 pupils and schools.

On the pupil level, the difference in English abilities for entering LCS 1 and LCS 9 pupils is less apparent. The wide range of variability in entering language proficiency is related to the structure of the Placement Aid, which includes three types of items, each representing a wide range of language skills. Thus, the variability reflected in these data indicates that LCS participants within each placement category include pupils with a wide range of English language proficiency in some or all of the three areas addressed. Yet in the aggregate at the school level, the differing placement groups are distinct.

Actual and Recommended Placement

An important aspect of program use is the extent to which actual pupil placement for instruction corresponds to the pupil's entering proficiency as measured (for LCS) by the Placement Aid. The data in Table 3 show the number of pupils attaining each possible score on the Placement Aid and the agreement between recommended and actual placement.

Table 3

Placement Aid Score Distribution by Recommended and Actual Placement

Recommended Placement	Score Category	Actual Placement: LCS 1 N	LCS 1 %	LCS 9 N	LCS 9 %
LCS 1	0	361	26	1	0
	1	79	6	3	1
	2	79	6	1	0
	3	90	7	3	1
	4	76	6	1	0
	5	54	4	2	0
	6	44	3	5	1
	7	68	5	10	2
	8	95	7	10	2
	9	62	5	23	4
	10	55	4	46	7
Total	1,168	1,063	(91%)	105	(9%)
LCS 9	11	47	3	61	10
	12	62	5	63	10
	13	48	4	68	11
	14	52	4	75	12
	15	43	3	103	17
Total	626	252	(41%)	370	(59%)
Reading	16	24	2	53	9
	17	20	2	46	7
	18	14	1	52	8
Total	209	58	(28%)	151	(72%)
Overall Total	1,999	1,373	(68%)	626	(32%)

These data show a tendency for pupils to be placed below the recommended entry level. A clear example of this phenomena can be seen in the placement decision for pupils scoring in the 11-15 score interval. The recommended placement for these pupils is LCS 9. However, 41% of those pupils were placed in LCS 1. Thus the wide variability in pupil placement aid scores for the two instructional groups observed earlier in Figures 1 and 2 is due to the decision by many schools not to follow the recommended placement guidelines.

The entering characteristics of the two sets of pupils (LCS 1 and LCS 9) are summarized in Table 4. Three-fourths of the participants were placed in LCS 1. LCS 9 participants tended to be slightly older and from higher grades. About two-thirds of the LCS 1 participants were 5 or 6 years of age and in kindergarten or first grade. The clearest difference between LCS 1 and LCS 9 pupils was in teacher-rated English language proficiency. Over half of the LCS 1 pupils were rated as not able to speak English, while only 4% of the LCS 9 pupils were so rated; thus the LCS 9 pupils apparently possessed some English language skills prior to LCS instruction.

DESCRIPTORS OF PROGRAM USE

The tryout data provide information on the proficiency of pupils on each LCS unit, the duration of Program use, rate of unit completion and number of units completed. These data are presented for the two instructional groups (LCS 1 and LCS 9) and for the pupil characteristic categories.

Unit Proficiency

The frequency distributions presented in Figures 3 and 4 clearly show the uniformly high level of proficiency attained by both LCS 1 and LCS 9 pupils on the Unit Criterion Exercises (CE). The maximum possible score on these measures is 10. The data show that the modal pupil score and the school average are in the highest possible score categories (9-10) for both LCS 1 and LCS 9 participants.

Table 4

Description of LCS 1 and LCS 9 Pupils

LCS 1 N= 2384 (76%)

Suggested Placement	LCS 1		LCS 9		Reading	
	N	%	N	%	N	%
	1063	77	252	18	58	4

English Ability	None		Accent		No Accent	
	N	%	N	%	N	%
	834	56	546	37	116	8

Age	4 to 5		6		7 to 8		9 or Older	
	N	%	N	%	N	%	N	%
	788	53	321	21	197	13	194	13

Grade	K		1		2		3 or More	
	N	%	N	%	N	%	N	%
	869	37	378	16	119	5	1018	43

LCS 9 N= 748 (24%)

Suggested Placement	LCS 1		LCS 9		Reading	
	N	%	N	%	N	%
	105	17	370	59	151	24

English Ability	None		Accent		No Accent	
	N	%	N	%	N	%
	24	4	327	60	199	36

Age	4 to 5		6		7 to 8		9 or Older	
	N	%	N	%	N	%	N	%
	198	39	121	24	106	21	82	16

Grade	K		1		2		3 or More	
	N	%	N	%	N	%	N	%
	231	31	138	18	83	11	296	40

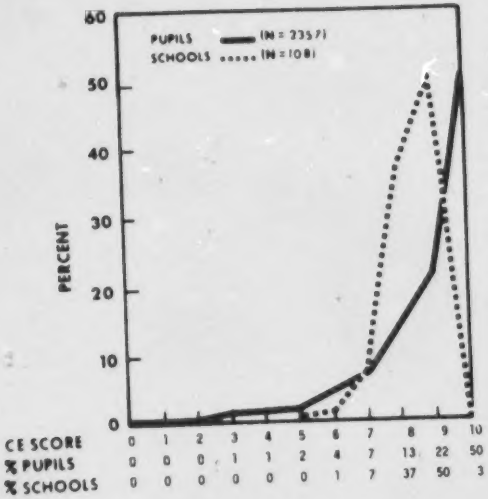


Figure 3. Distribution of average unit CE scores for LCS 1 pupils and schools.

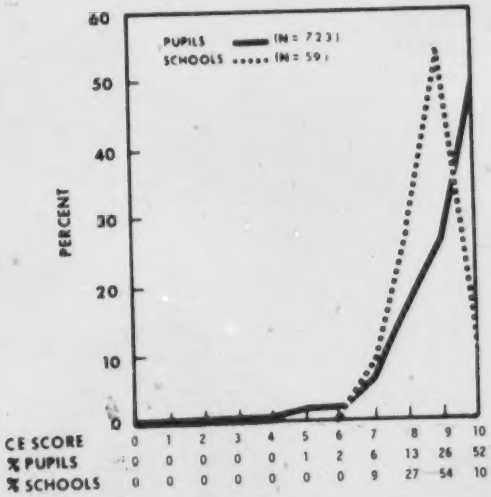
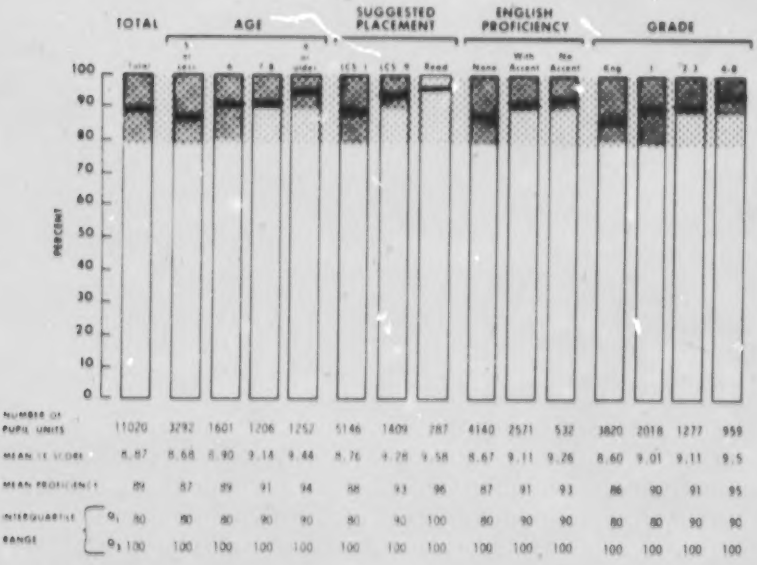


Figure 4.. Distribution of average unit CE scores for LCS 9 pupils and schools.

The Unit CE proficiency data by pupil characteristic categories are presented in Tables 5 and 6 for the LCS 1 and LCS 9 pupils, respectively. They show only slight variability in proficiency level across categories for LCS 1 pupils and little or none for LCS 9 pupils. In both cases, the overall level of proficiency attained is quite high, making any variability between characteristic categories relatively insignificant. The average proficiency level for LCS 1 pupils is greater than 85%, and for LCS 9, greater than 90%.

Table 5

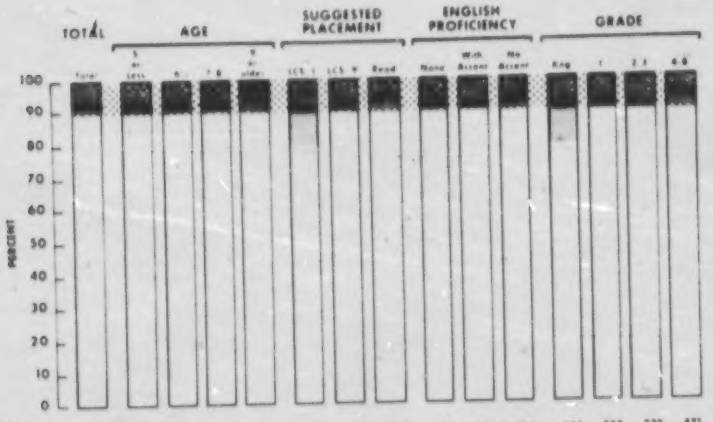
Unit CE Proficiency by Characteristic Categories: LCS 1 Pupils



	Total	5 or less	6	7-8	9 or older	LCS 1	LCS 9	Read	None	With Accent	No Accent	Kg	1	2-3	4-8
NUMBER OF PUPIL UNITS	11020	3292	1601	1206	1252	5146	1409	287	4140	2571	532	3820	2018	1277	959
MEAN SCORE	8.87	8.68	8.90	9.14	9.44	8.76	9.26	9.58	8.67	9.11	9.26	8.60	9.01	9.11	9.5
MEAN PROFICIENCY	89	87	89	91	94	88	93	96	87	91	93	86	90	91	95
INTERQUARTILE RANGE Q_1	80	80	80	90	90	80	90	100	80	90	90	80	80	90	90
INTERQUARTILE RANGE Q_3	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 6

Unit CE Proficiency by Characteristic Categories: LCS 9 Pupils



	Total	5 or less	6	7 & 8	9 or older	LCS 1	LCS 9	Read	None	With Accent	No Accent	Kg	1	2 3	4 5
NUMBER OF PUPIL UNITS	3385	831	424	623	441	522	1828	538	63	1550	813	962	592	732	471
MEAN CE SCORE	9.15	9.10	9.23	9.15	9.17	8.95	9.10	9.48	9.22	9.10	9.32	9.04	9.03	9.07	9.48
MEAN PROFICIENCY	92	91	92	92	94	90	91	95	92	91	93	90	90	90	95
INTERQUARTILE Q_1	90	90	90	90	90	80	90	90	90	90	90	80	90	90	90
RANGE Q_3	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Duration of Program Use

Duration refers to the length of time in calendar days that the program was used. Figures 5 and 6 record the duration at the pupil and school levels of participation in LCS. These data, given separately for the LCS 1 and LCS 9 instructional groups, show considerable variability in both cases and at both levels. The pattern of the LCS 1 pupils is clearly different from that of the LCS 9 pupils. For the pupil, and especially the school, LCS 1 data approximate a bimodal distribution with the intervals of 80-100 days and 140-160 days being the two modes. For the LCS 9 pupils, the pupil and school data are less variable.

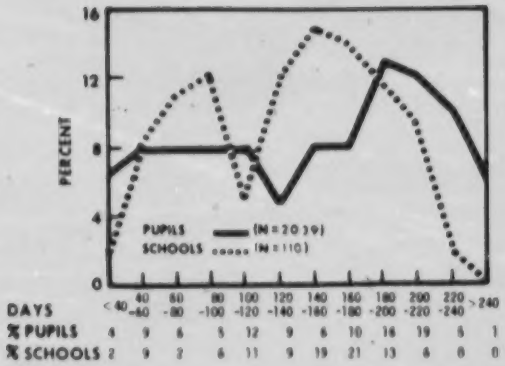


Figure 5. Distribution of program use durations for LCS 1 pupils and schools.

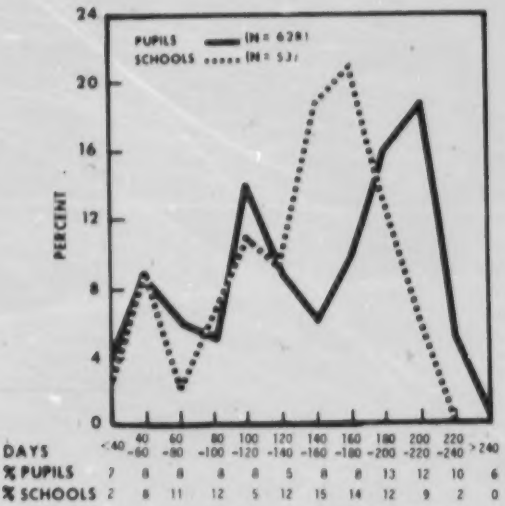


Figure 6. Distribution of program use durations for LCS 9 pupils and schools.

Some indication of the relationship between pupil characteristics and duration is provided by the data in Tables 7 and 8. They show that the durations vary across pupil characteristics within an instructional category. For example, in LCS 1, pupils in the 5 years of age or less category spend an average of 141 calendar days in the program, while the older pupils (9 years or more) spend an average of 189 days. Large differences appear in other categories, both for the LCS 1 and LCS 9 pupils. Further, the variability of durations between the pupil categories also differs considerably. The interquartile range for all sample pupils in LCS 1 and LCS 9 is between 80 and 200. This means about half the pupils spend between 80 and 200 calendar days in LCS instruction (between 3 and 7 months). Clearly the picture of program use on the basis of the duration data indicates that much variability exists.

Table 7

Duration of Program Use by Characteristic Categories: LCS 1 Pupils

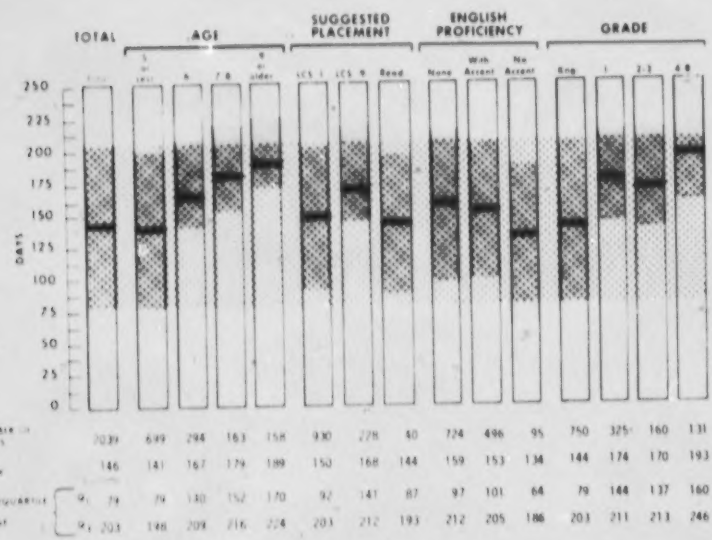
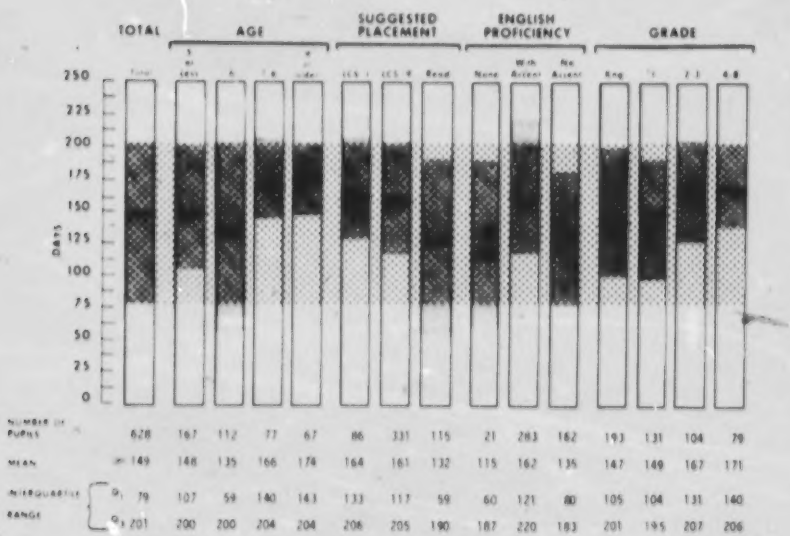


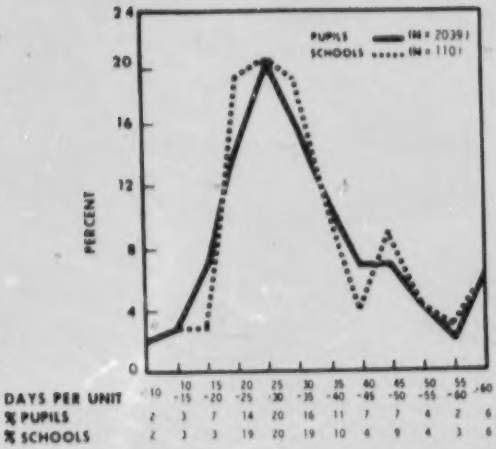
Table 8

Duration of Program Use by Characteristic Categories: LCS 9 Pupils



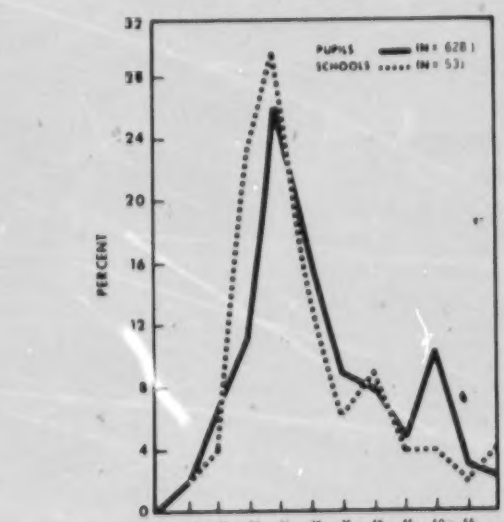
Rate of Unit Completion. The data in Figures 7 and 8 give the distribution of unit completion rates displayed by LCS 1 and 9 pupils and schools. These data are quite similar for both groups with the modal category in all cases being 25-30 calendar days. Thus pupils (and schools) typically spend about 4 weeks on each LCS unit. One clear implication of this data is that pupils who enter LCS in the fall term should have ample time to complete either the 8 units of LCS 1 or the 7 units of LCS 9 in the course of the typical school year (35-40 weeks).

Tables 9 and 10 present the respective rates of unit completion for LCS 1 and LCS 9 by pupil characteristic categories. By way of contrast with the duration data, these results show considerable consistency in all cases. Pupils in both instructional groups typically spend about a calendar month (34 days) completing a unit with little variation across pupil categories.



DAYS PER UNIT	<10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	>60
% PUPILS	2	3	7	14	20	16	11	7	7	4	2	6
% SCHOOLS	2	3	3	19	20	19	10	6	9	4	3	6

Figure 7. Distribution of unit completion rates for LCS 1 pupils and schools.

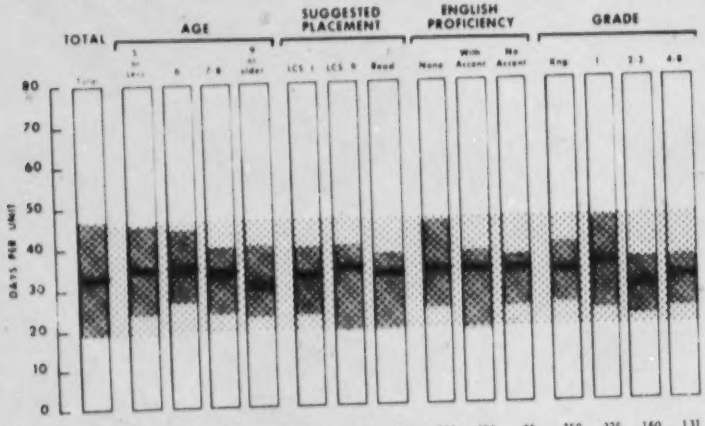


DAYS PER UNIT	<10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	>60
% PUPILS	0	2	7	11	26	17	9	8	5	10	3	2
% SCHOOLS	0	2	4	23	30	13	6	9	4	4	2	4

Figure 8. Distribution of unit completion rates for LCS 9 pupils and schools.

Table 9

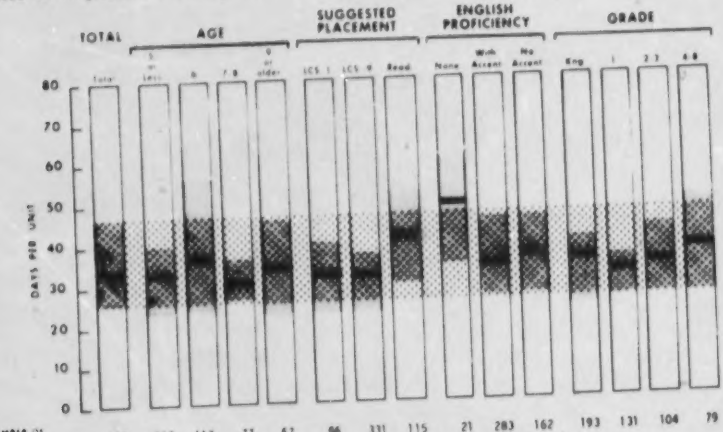
Unit Completion Rates by Characteristic Categories: LCS 1 Pupils



	Total	5 or Less	6	7-8	9 or older	LCS 1	LCS 9	Read	None	With Accent	No Accent	Kng	1	2-3	4-8
NUMBER OF PUPILS	2039	699	294	163	158	930	228	40	724	496	95	750	325	160	131
MEAN DAYS PER UNIT	34	36	36	34	31	34	35	34	35	35	34	34	36	30	31
INTERQUARTILE Q_1	20	25	27	25	25	24	20	20	25	20	25	25	24	23	24
INTERQUARTILE Q_3	47	45	44	40	41	41	41	38	46	39	37	40	46	35	37

Table 10

Unit Completion Rates by Characteristic Categories: LCS 9 Pupils



	Total	5 or Less	6	7-8	9 or older	LCS 1	LCS 9	Read	None	With Accent	No Accent	Kng	1	2-3	4-8
NUMBER OF PUPILS	628	167	112	77	67	86	331	115	21	283	162	193	131	104	79
MEAN DAYS PER UNIT	34	34	37	30	35	34	33	42	49	34	37	35	33	34	38
INTERQUARTILE Q_1	27	24	24	26	23	24	24	31	35	26	27	24	26	26	26
RANGE Q_3	47	40	55	36	46	41	38	53	60	45	46	40	35	43	50

Number of Units Completed. The distributions of units completed for participants are presented in Figures 9 and 10. Although the distributions are uneven, the modal category for LCS 1 pupils is 4 units and for LCS 9 pupils, 7 units. Overall, these data indicate that about 50% of the LCS 9 pupils

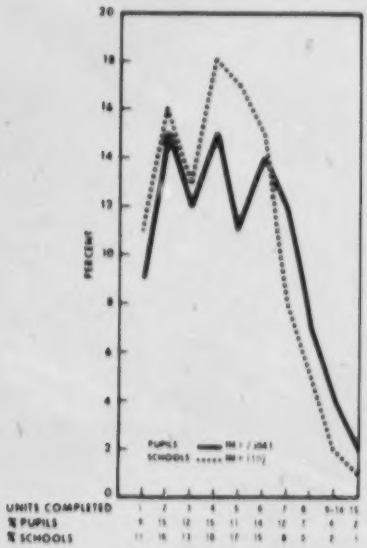


Figure 9. Distribution of units completed for LCS 1 pupils and schools.

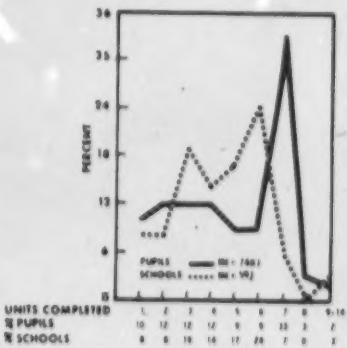


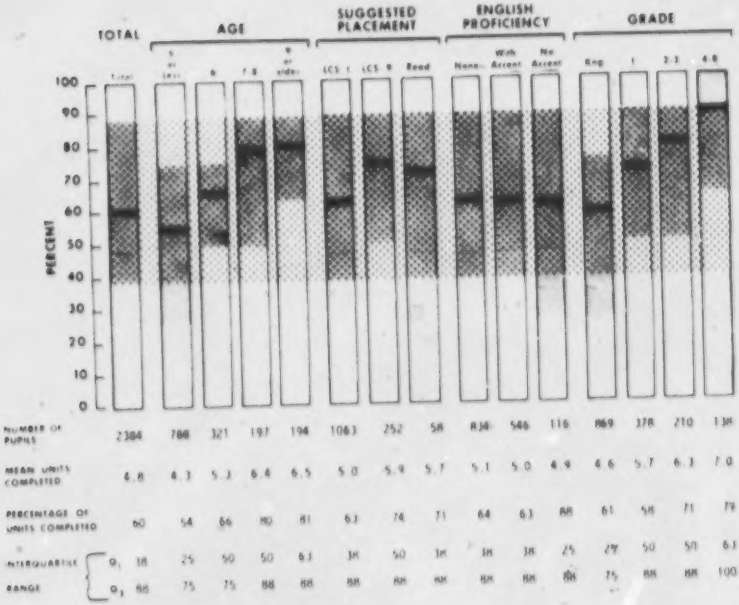
Figure 10. Distribution of units completed for LCS 9 pupils and schools.

completed the 7 units of the Program. For LCS 1 pupils, about 40% finished 6 units with only about 13% completing all LCS 1 units, i.e., 8 or more. Both the LCS 1 and LCS 9 groups showed much variability, as their distributions indicate. Almost equal numbers of pupils completed each number of units for LCS 1; LCS 9 pupils appear in all units-completed categories.

The pattern of unit completion displayed by pupils in each of the descriptive categories is presented in Tables 11 and 12. For the LCS 1 pupils, the averages across these categories range from 4.3 to 7.0 units completed. There is a very clear relationship

Table 11

Units Completed by Characteristic Categories: LCS 1 Pupils

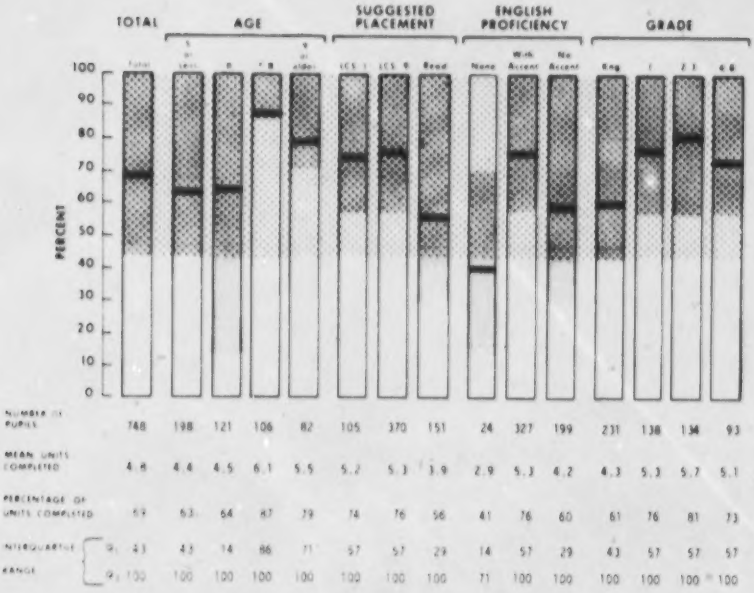


	Total	5 or less	6	7-8	9 or older	LCS 1	LCS 9	Read	None	With Accent	No Accent	Eng.	1	2-3	4-8
NUMBER OF PUPILS	2384	788	321	197	194	1063	252	58	836	546	116	869	378	210	138
MEAN UNITS COMPLETED	4.8	4.3	5.3	6.4	6.5	5.0	5.9	5.7	5.1	5.0	4.9	4.6	5.7	6.3	7.0
PERCENTAGE OF UNITS COMPLETED	60	54	66	80	81	63	74	71	64	63	88	61	58	71	79
INTERQUARTILE Q_1	38	25	50	50	63	38	50	38	38	38	25	29	50	50	63
RANGE Q_3	88	75	75	88	88	88	88	88	88	88	88	75	88	88	100

between units completed and pupil age and grade placement: older pupils tend to complete more LCS 1 units. The number of units completed is not related, however, to the initial English ability of entering pupils in LCS 1. Thus, pupils rated by teachers as not speaking English were able to complete as many units as pupils rated as having either some or considerable skills. Pupils from suggested placement categories of LCS 9 and standard reading placement (equivalent to completion of all LCS units) typically and expectedly completed more LCS 1 units than pupils whose suggested placement was LCS 1. This provides support for the validity of the LCS 1/LCS 9 placement and instructional treatments embodied in the Program.

Table 12

Units Completed by Characteristic Categories: LCS 9 Pupils



For LCS 9 the patterns are somewhat different. Units completed increase less regularly across age and grade categories. Furthermore, pupils in the category of suggested placement in Reading, and who were rated as speaking English without an accent, definitely finished fewer units than pupils in other categories. This may reflect different requirements for return to regular instruction across schools. As we shall see, substantial numbers of LCS 9 pupils were placed in regular instruction during the school year.

Summary of Program Use Data

The variability in the duration of program use and in the rate at which units are completed is fully consistent with the architectural format of LCS and with the varying range of

characteristics of participating pupils. Of primary importance is the pattern of pupil proficiency attained on units completed, which was uniformly high for both LCS 1 and LCS 9 pupils, and the amount of instruction delivered, i.e., units completed, which was also substantial. Yet there was considerable variability in units completed, especially among LCS 1 pupils. Given the variability in duration of program use and the characteristics of pupils in LCS 1, i.e., mostly less than 6 years of age and with little or no English language proficiency upon entering, the data on units completed is relatively insignificant. If two important criteria for successful program use are the quantity of instructional delivery and the quality of enroute proficiency, LCS users clearly demonstrate the effectiveness of LCS instruction.

PROFICIENCY STATUS AFTER PROGRAM USE

Two indicators of pupil proficiency status after LCS instruction were used in the inquiry. The first was the proficiency of pupils on the three outcomes of the LCS Program Assessment. The outcomes were 1) Concept Identification, which requires that the pupil point to an object in response to a question given in English; 2) Concept Statement, which requires that the pupil produce a short verbal response in English about a picture; and 3) Language Production, which requires that the pupil produce a complete English sentence. The LCS Program Assessment was administered to each pupil individually by the classroom teacher at either the end of the school year or after completion of LCS instruction.

The second indicator was pupil instructional status, either in LCS or regular instruction, at the end of the year. Data on both of these aspects for LCS 1 and LCS 9 pupils are presented in this section.

LCS 1 End-of-Year Proficiency

Frequency distributions of LCS 1 pupils on the Program Assessment outcomes are presented in Figures 11-13. These data

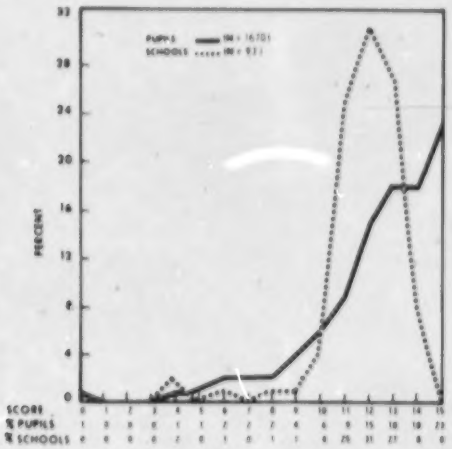


Figure 11. Distribution of scores on Concept Identification outcome of the Program Assessment for LCS 1 pupils and schools.

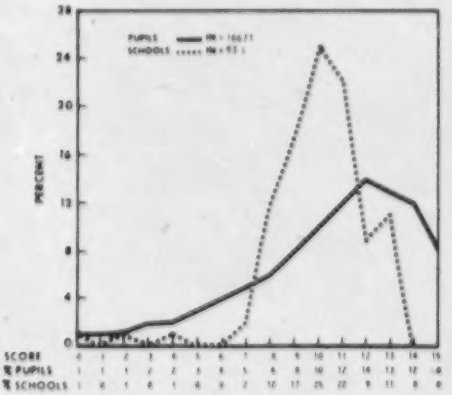


Figure 12. Distribution of scores on Concept Statement outcome of the Program Assessment for LCS 1 pupils and schools.

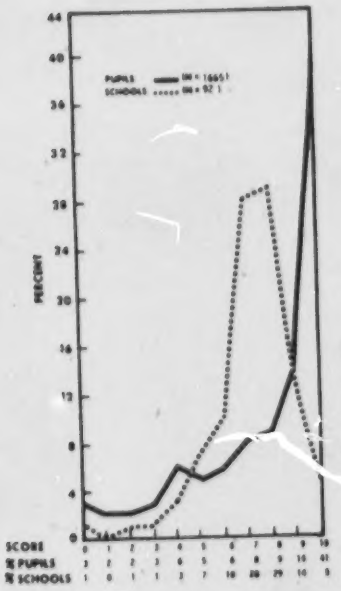
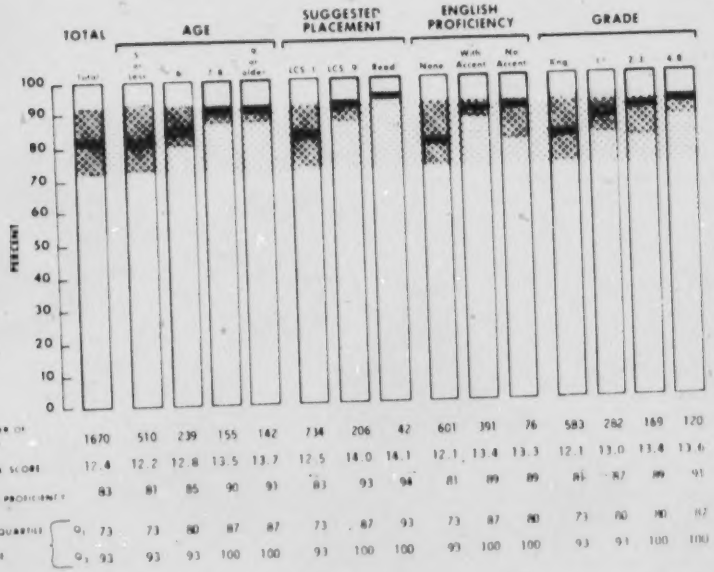


Figure 13. Distribution of scores on Language Production outcome of the Program Assessment for LCS 1 pupils and schools.

show evidence of high proficiency on all three outcomes. This was especially true of the Concept Identification and Language Production outcomes where the highest score category was the modal score. The score distributions for the Concept Statement outcome indicated slightly less proficiency for participating LCS 1 pupils. This was somewhat surprising since it was anticipated that pupils would find the Language Production outcome of LCS considerably more difficult than the Concept Identification. The data clearly show that pupils found it easier to manipulate English syntax without new concepts than to recall English concepts. In addition to these score distributions, estimates of proficiency on each of the outcomes were calculated. The data on the Concept Identification outcome are shown in Table 13. Only slight changes in average proficiency across pupil characteristic categories are in evidence. Thus, as might be

Table 13

Proficiency on the Concept Identification Outcome of the Program Assessment by Characteristic Categories: LCS 1 Pupils

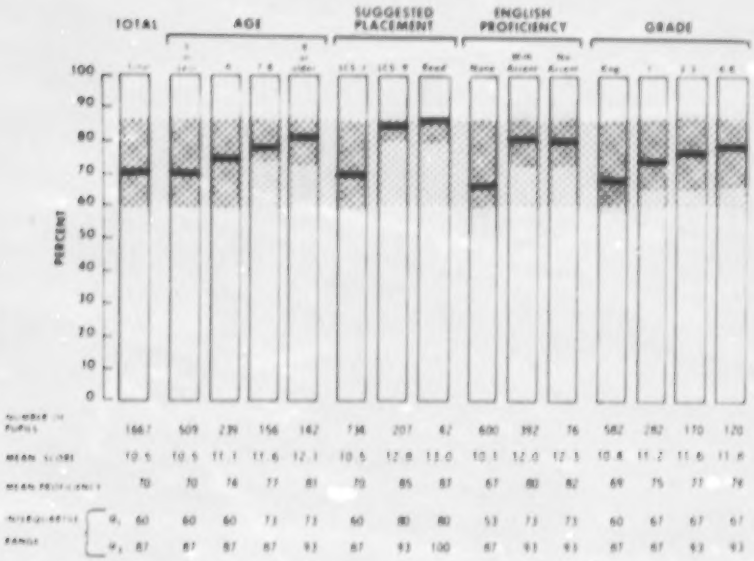


anticipated, pupils rated as having some English language skill on entering LCS, older pupils, and those placed in LCS below the suggested entry point displayed slightly higher proficiency levels and were less "spread out" than pupils in other categories.

This same proficiency variability pattern holds for the Concept Statement outcome (Table 14). The mean differences, however, are considerably greater between pupil characteristic categories on this outcome than for Concept Identification. The differences in proficiency between the suggested placement categories and rated English language skill categories are especially large.

Table 14

Proficiency on the Concept Statement Outcome of the Program Assessment by Characteristic Categories: LCS 1 Pupils



	TOTAL	AGE				SUGGESTED PLACEMENT			ENGLISH PROFICIENCY			GRADE			
NUMBER OF PUPILS	1667	509	239	156	142	716	207	42	600	392	76	582	282	170	120
MEAN SCORE	10.5	10.5	11.1	11.6	12.1	10.5	12.8	13.0	10.1	12.0	12.5	10.8	11.2	11.6	11.8
MEAN PROFICIENCY	70	70	74	77	81	70	85	87	67	80	82	69	75	77	79
INTERQUARTILE RANGE	Q_1 60	60	60	73	73	60	80	80	53	73	73	60	67	67	67
	Q_3 87	87	87	87	93	87	93	100	87	93	93	87	87	93	93

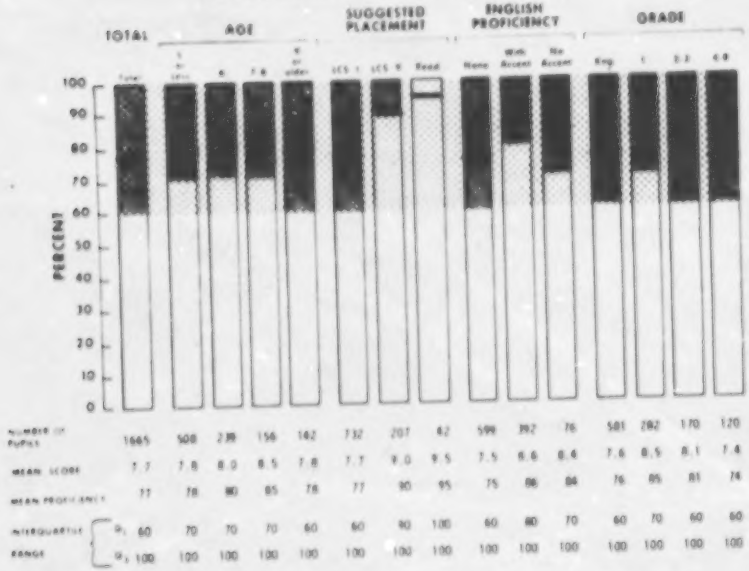
The Language Production outcome arrayed in Table 15 shows greater independence of proficiency according to pupil age level and entering skills than the other assessment outcomes. This outcome also displays the greatest absolute variability.

LCS 9 End-of-Year Proficiency

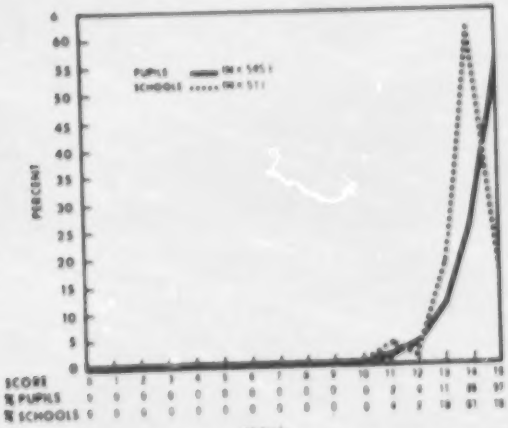
The score distributions on the Program Assessment for the LCS 9 participants are given in Figures 14-16. The proficiency pattern on all these outcomes shows high levels of attainment. For all outcomes, the highest score is the modal score category. Further, for the Concept Identification and Language Production outcomes, over half of the pupils attained the highest possible score. For the Concept Statement outcome, slightly fewer pupils attained the highest score (34%), but a total of 64% were in the highest two score categories. Thus, overall proficiency by LCS 9 students was extremely high on all outcomes of the assessment.

Table 15

Proficiency on the Language Production Outcome of the Program Assessment by Characteristic Categories: LCS 1 Pupils



NUMBER OF PUPILS	1665	508	239	156	162	732	207	62	599	392	76	581	282	170	120
MEAN SCORE	7.7	7.8	8.0	8.5	7.8	7.7	9.0	9.5	7.5	8.6	8.4	7.6	8.5	8.1	7.4
MEAN PROFICIENCY	77	78	80	85	78	77	90	95	75	86	84	76	85	81	74
INTERQUARTILE P_{75}	60	70	70	70	60	60	90	100	60	80	70	60	70	60	60
RANGE P_{25}	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100



SCORE	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
% PUPILS	0	0	0	0	0	0	0	0	0	0	0	0	2	9	11	37
% SCHOOLS	0	0	0	0	0	0	0	0	0	0	0	4	3	19	31	18

Figure 14. Distribution of scores on the Concept Identification outcome of the Program Assessment for LCS 9 pupils and schools.

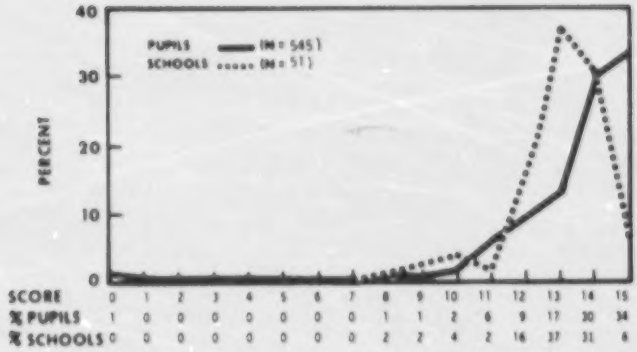


Figure 15. Distribution of scores on the Concept Statement outcome of the Program Assessment for LCS 9 pupils and schools.

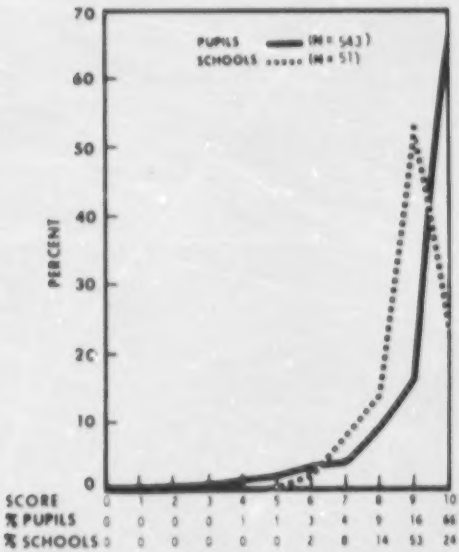


Figure 16. Distribution of scores on the Language Production outcome of the Program Assessment for LCS 9 pupils and schools.

Given the high proficiency level and limited variability in outcome scores for the total sample of LCS 9 pupils, score differences between pupils in the various characteristic categories should be minimal. The data in Tables 16-18 corroborate this expectation. The categories of pupils that appear to be most affected are those 5 years of age or younger (kindergarten grade level pupils) and those which were rated as speaking no English upon entry. Differences even for these pupil categories are evident on only one outcome (Concept Identification). The overall picture of the LCS 9 pupils is that high proficiency was attained on the Program Assessment.

Table 16

Proficiency on the Concept Identification Outcome of the Program Assessment by Characteristic Categories: LCS 9 Pupils

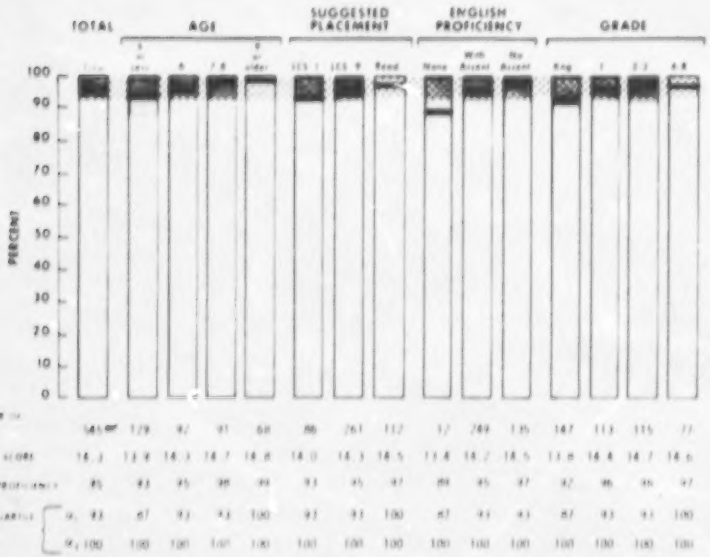
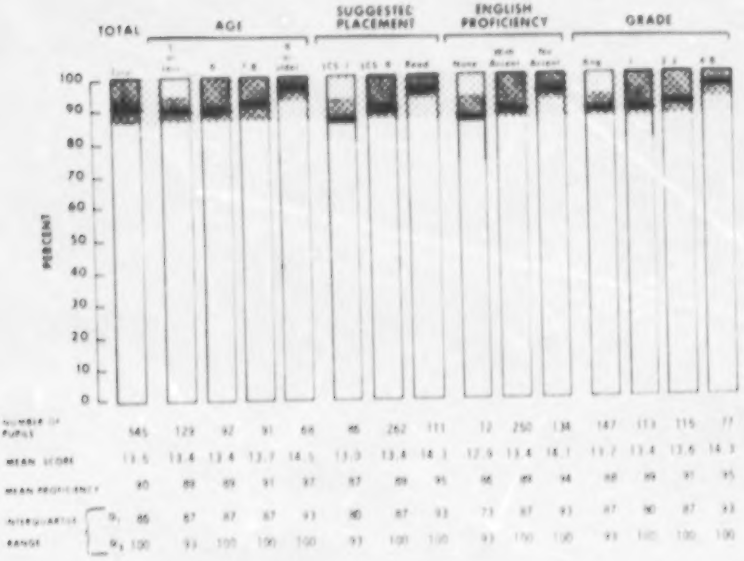


Table 17

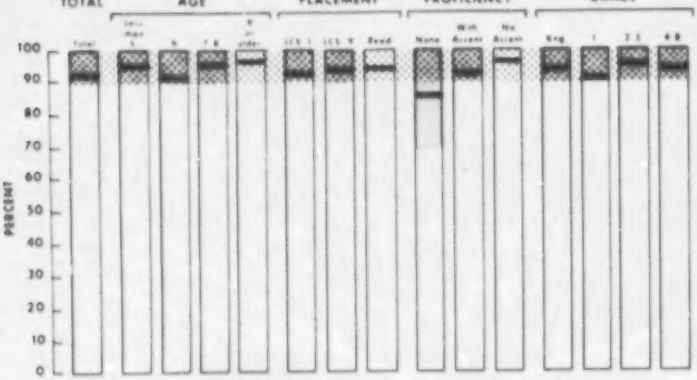
Proficiency on the Concept Statement Outcome of the Program Assessment by Characteristic Categories: LCS 9 Pupils



Instructional Status After Program Use

An important objective of LCS is to provide sufficient English language proficiency to allow pupils to return to standard reading instruction as rapidly as possible. Information on this aspect of the program is summarized in Table 19. Of special note is the minimal difference in the number of pupils who return to standard reading instruction from the various pupil categories. If anything, the pattern is somewhat contrary to what might be anticipated: younger pupils, those with limited English skills upon entering into LCS, and those with lower placement scores are at least as well represented in the "returned to instruction" group as their classmates in other categories. The overall proportion of pupils who return to standard reading instruction

Table 18
Proficiency on the Language Production Outcome of the Program Assessment by Characteristic
Categories: LCS 9 Pupils



	TOTAL	AGE				SUGGESTED PLACEMENT			ENGLISH PROFICIENCY			GRADE			
	Total	Less than 5	6	7 & 8	9 or older	LCS I	LCS 9	Read	None	With Accent	No Accent	Kdg	1	2 3	4 8
NUMBER OF PUPILS	543	129	92	90	66	85	262	111	12	250	133	147	113	114	77
MEAN SCORE	9.2	9.4	9.1	9.6	9.7	9.3	9.3	9.5	8.6	9.3	9.6	9.4	9.0	9.5	9.3
MEAN PROFICIENCY	92	94	91	94	97	93	93	95	86	93	96	94	90	95	93
INTERQUARTILE RANGE Q_1	90	90	90	90	100	90	90	100	70	90	100	90	90	90	90
INTERQUARTILE RANGE Q_3	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 19
Status of Pupils After Instruction

		LCS I				LCS 9			
		Regular Class	Left School	Other Spec. Prog.	In LCS	Regular Class	Left School	Other Spec. Prog.	In LCS
Suggested Placement	LCS I	64 (12)	50 (09)	10 (02)	432 (80)	51 (45)	6 (09)	2 (03)	30 (44)
	LCS 9	12 (07)	16 (10)	3 (02)	132 (81)	119 (57)	14 (07)	4 (02)	72 (34)
	Reading	3 (10)	1 (03)	1 (03)	24 (83)	50 (61)	4 (05)	0 (00)	28 (34)
English Ability	None	36 (07)	57 (11)	12 (03)	382 (78)	4 (50)	2 (25)	0 (00)	2 (25)
	Accent	54 (16)	36 (11)	6 (02)	234 (71)	124 (58)	14 (07)	2 (01)	74 (35)
	No Accent	3 (04)	4 (06)	1 (02)	60 (88)	56 (49)	8 (07)	4 (04)	46 (40)
Age	4 to 5	45 (11)	46 (12)	11 (03)	288 (74)	43 (47)	6 (07)	0 (00)	42 (46)
	6	28 (14)	21 (10)	4 (01)	154 (74)	51 (74)	6 (09)	2 (03)	10 (15)
	7 to 8	9 (06)	12 (08)	5 (03)	121 (82)	62 (63)	5 (05)	0 (00)	31 (32)
	>8	3 (03)	14 (12)	0 (00)	103 (86)	29 (51)	5 (09)	4 (07)	19 (33)
Grade	K	58 (13)	55 (12)	16 (04)	324 (71)	56 (53)	5 (05)	0 (00)	45 (42)
	1	36 (15)	27 (09)	3 (01)	179 (74)	52 (68)	8 (11)	2 (03)	14 (18)
	2-3	6 (04)	12 (09)	3 (02)	117 (85)	60 (54)	6 (05)	0 (00)	46 (41)
	4-8	0 (00)	9 (10)	0 (00)	83 (90)	28 (48)	3 (05)	4 (07)	23 (40)
Total		145 (11)	168 (12)	29 (02)	1023 (75)	216 (50)	32 (07)	11 (03)	173 (40)

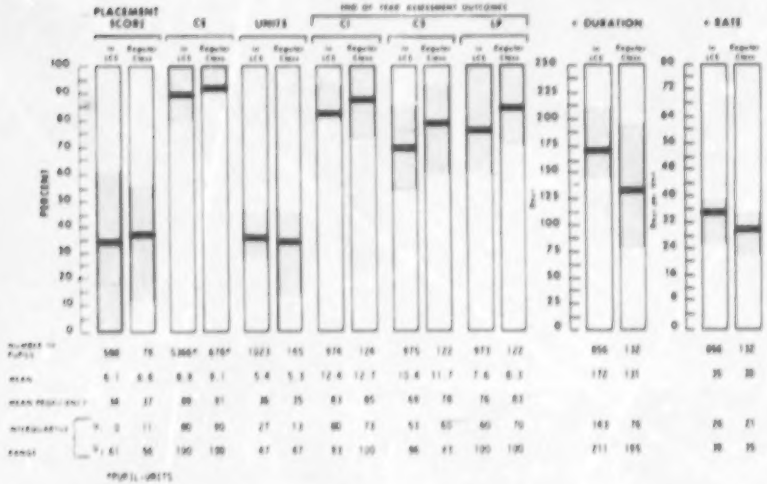
is reasonable in view of the pattern of unit completion and proficiency displayed by those pupils on the Program Assessment. The data clearly show that many of the LCS 1 pupils simply did not receive enough LCS instruction to master the Concept Statement and Language Production outcomes by the end of the school year.

The data for the LCS 9 pupils show that about half were returned to regular instruction by the end of the school year. There is little variation in this proportion within each of the pupil characteristic categories. While this percentage is substantial, it is still below that which appears reasonable and possible with LCS use, given the pattern of proficiency displayed on the Program Assessment.

Characteristics of Pupils Leaving and Remaining in LCS. The characteristics of the LCS 1 pupils assigned to LCS for further instruction compared to those who either returned or will return to standard reading instruction are presented in Table 20. These data are useful in understanding differences in the way the program is used. In general, the pupils who returned to standard reading instruction performed at slightly higher levels on all the performance measures. These included the Placement Aid given prior to instruction (34% vs. 37%), the unit Criterion Exercises given during instruction (89% vs. 91%), and the three outcomes of Concept Identification (83% vs. 85%), Concept Statement (69% vs. 78%) and Language Production (76% vs. 83%) of the Program Assessment. Yet the differences in performance between these two groups are quite small and of little practical value, especially on the Placement Aid and unit Criterion Exercise measures. Further, the data in Table 20 show much overlap in the distributions on each of these measures.

In terms of the pacing measures, LCS 1 pupils leaving LCS did not outperform their counterparts in terms of duration and quantity of units completed but rather in terms of rate. This difference in rate of completion for "graduating" LCS pupils is predictable. Coupled with other data, the general impression is that pupils leaving LCS performed at slightly higher levels on

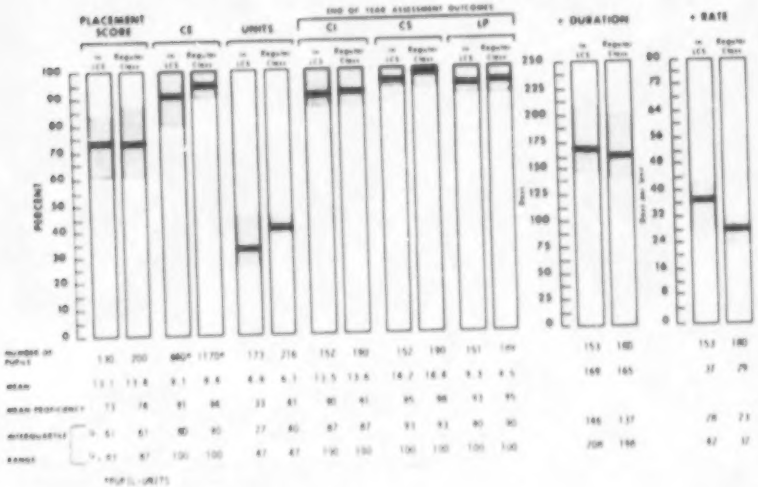
Table 20
Characteristics of LCS 1 Pupils Remaining and Leaving the Program at End of Year



proficiency measures and moved through the program at a slightly more rapid pace. However, the overall impression is that decisions about placement for this group cannot be explained solely on the basis of proficiency. Clearly, other considerations are being used by teachers in reaching this instructional decision.

The data on LCS 9 pupils in Table 21 show a somewhat different pattern. For all LCS 9 pupils, high scores were obtained on the performance measures with minimal differences in proficiency between the groups of pupils remaining in and those graduating from LCS. There clearly are important differences, however, in the measures of program pacing between these groups, with pupils graduating from LCS completing more units at a faster rate and in less time (days).

Table 21
Characteristics of LCS 9 Pupils Remaining and Leaving the Program at End of Year



SUMMARY

The data confirm and extend the findings of previous studies involving LCS: the program is demonstrably a flexible, sensitive, and powerful instructional resource. All indicators of program effectiveness point to considerable robustness of desired effects under a remarkably wide range of use conditions.

While the indicators of program use reflect a general pattern of reasoned and coherent instructional decision making, the pattern also suggests that in many situations considerations other than pupil proficiency indicators play an important role in the teacher's decisions. In large part this appears to reflect "conservative" professional judgments regarding pupil placement, pacing of instruction, and graduation from LCS. These judgments no doubt reflect an intention to "make sure" that the requisites for the child's future instructional success are present. But, according to the present data, teachers often established conditions that underestimated the instruction the child could handle. This is *not* to fault the decisions that were made. Important instructional accomplishments on LCS outcomes were reliably attained by the pupils, teachers, and administrators using LCS during the school year.

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